

CRSS
COLORADO RIVER SIMULATION SYSTEM
Hydrologic Flow and Salt Data Base for the
Lower Colorado Region, Lees Ferry to Imperial Dam

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INTRODUCTION

The Colorado River Simulation System uses adjusted historical flow and salt loads among its inputs to project future flow and salinity concentrations of the Colorado River System. These adjusted historical flow and salt load input files are updated every few years as more historical data becomes available. The data updates are performed and published separately for the Upper and Lower Colorado Basins.

The original database report, entitled "Hydrology Data Base Lower Colorado Region (Lees Ferry to Imperial Dam)", May 1985, documents the methods first used to compute the flow and salt loads in the Lower Basin. This report should be consulted for initial background information on the development of the database. The original database covered data through December 1982.

A subsequent review and update of the database was conducted to cover the period through September 1986 and was documented in a brief report dated May 1988.

This report will document changes that were made at that time as well as those which have been made for the latest review and update of the database. This covers the period of record through December 1990.

For each station's data, comparisons were made among the original database file, the interim data compiled through 1986, and an outside source for the data in order to identify any discrepancies. An attempt was made wherever possible to recreate any generated data by using the same methods, coefficients, and source data as in the previous database versions. Some of the data thus researched or calculated was found to have varying levels of differences when compared to previously used values. The following sections describe the reviewing and updating procedures in detail along with any resulting changes on a reach by reach basis.

The 5 reaches are:

1. Lees Ferry to Grand Canyon
2. Grand Canyon to Hoover Dam
3. Hoover Dam to Davis Dam
4. Davis Dam to Parker Dam
5. Parker Dam to Imperial Dam

** Note on United States Geological Survey (USGS) Data - USGS data files for many of the database components were provided by the Lower Colorado Regional Office. When compared to existing database values, it was apparent that these USGS figures had been

rounded and that the previous database figures came from a different USGS source. In most cases, the differences between the USGS and database values were very small (less than 1 percent) and were attributed to the rounding procedure. Under the assumption that they were correct, the more precise values from previous database files were kept. Wherever the difference was greater than 1 percent however, the provided USGS value was taken to be more correct.

**** Note on Provisional Data**

Much of the data collected for 1990 and salt load data for 1989 is still regarded as provisional by the suppliers, and therefore it is generally not included in any calculations of averages or determinations of monthly distributions from annual values.

**** Data taken from the Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California, March 9, 1964, will be referred to as 'Article V data' in this report.**

LEES FERRY TO GRAND CANYON - FLOW

The monthly flow gains as acre-feet for the Lees Ferry to Grand Canyon reach for the period January 1923 through December 1990 were computed by :

- + Colorado River near Grand Canyon, AZ
- Colorado River at Lees Ferry, AZ
- Inflow - Paria River at Lees Ferry, AZ
- Inflow - Little Colorado River at Cameron, AZ
- = Flow Gains, Lees Ferry to Grand Canyon

Blue Springs was removed from the gains calculations since CRSS does not use it as an inflow station.

Colorado River near Grand Canyon - USGS data begins in 1923. Minor corrections were made for previous data entry errors. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Colorado River at Lees Ferry - USGS data begins in 1922. February values were corrected for leap years - this data was originally published by the USGS as cubic feet per second and prior conversion to acre-feet per month did not account for leap years. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Paria River at Lees Ferry - USGS data begins in 1924. Data prior to this time period (1906-1923) was synthesized from monthly regression equations using precipitation data at Tropic, Utah, for the independent variable. Correlations were done on a monthly basis, and the monthly flow equations are presented in the report of May 1985. USGS data was added to update through 1990. Average annual inflow from the Paria River is 21,067 acre-feet, with extreme values ranging from a maximum of 48,011 acre-feet to a minimum of 9,059 acre-feet.

Little Colorado River at Cameron - USGS data begins in 1947. Original database values were corrected for leap years. Data for 1926-1947 was developed from regression equations using USGS data for the Little Colorado River at Grand Falls gage as the independent variable. Details of the regression are presented in the May 1985 report. Data for 1906-1925 had been reported to be generated by averaging the 1926-1982 data values. Recalculating now for verification yielded different average values than those in the original database though, and it is unclear which values were indeed used to obtain these averages. New monthly averages were computed using 1926-1989 values to provide data for 1905-

1925. Also, existing data after 1981 was replaced with USGS data due to differences of more than 1 percent. USGS data was added to update the file through 1990. Average annual inflow from the Little Colorado River is 193,480 acre-feet, with extreme values ranging from a maximum of 642,956 acre-feet to a minimum of 19,273 acre-feet.

Monthly Flow Gains - Previously, monthly average values of 1963-1982 data were used for the period 1905-1962. Changing flow regime caused by the upstream formation of Lake Powell had been cited for using the 1963-1982 averages, but it is unclear what relation this has to reach gain computations. As was done for the interim update, monthly flow gains were computed for the period 1923 to 1990, which is the longest common period of record for the component stations. Monthly flow gains for 1905-1922 were calculated as averages of 1923-1989 data values. The average annual flow gain from Lees Ferry to Grand Canyon is 128,279 acre-feet, with the extreme values ranging from a maximum of 818,620 acre-feet to a minimum of -334,720 acre-feet.

LEES FERRY TO GRAND CANYON - SALT

The monthly salt gains as tons per month for the Lees Ferry to Grand Canyon reach for the period January 1923 through December 1990 were computed by :

- + Colorado River near Grand Canyon, AZ
- Colorado River at Lees Ferry, AZ
- Inflow - Paria River at Lees Ferry, AZ
- Inflow - Little Colorado River at Cameron, AZ
- = Salt Gains, Lees Ferry to Grand Canyon

Colorado River Near Grand Canyon - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". Data for 1990 was unavailable, so provisional data was derived by multiplying the 1989 salt/flow ratio by the 1990 flow values.

Colorado River at Lees Ferry - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15.". Data for 1990 was computed from linear interpolation of 6 USGS measurements of TDS by sum of constituents. Daily flow values were used to compute daily salt loads and these were summed to monthly totals. TDS values were not available for October-November-December, so TDS values from 1989 were used to calculate provisional data for these months.

Paria River at Lees Ferry - no EC or TDS data was available for

1983-1990. Monthly salt tonnage was computed for this period using the salt tonnage vs. flow relation (tons = 1.7378*AF - 454) as presented in the May 1985 report to update the file through 1990. Average annual salt load inflow from the Paria River is 31,938 tons, with extreme values ranging from a maximum of 78,372 tons to a minimum of 10,504 tons.

Little Colorado River at Cameron - Salt load values were recalculated for 1905-1982 by multiplying the new flow values by the monthly salt to flow ratios as presented in the May 1985 report.

For the period 1983-1985, the monthly salt tonnage was computed from log(TDS) vs log(Q) regressions of the form $TDS = a * Q^b$ where Q is the instantaneous discharge at the time of TDS sampling. The relationship, based on 11 data pairs, was determined to be $TDS = 776.4 * Q^{-.1316}$ and had an r squared of only 0.17.

No EC or TDS data was available for 1986-1990. For this period, regression relationships for each month were developed from 1975-1985 data for monthly salt tonnage vs. flow and these were used to compute 1986-1990 data. The relationships and the corresponding r-squared's are as follows:

Jan-	$\ln(\text{tonnage}) = 0.9496 * \ln(Q) + 0.0584$	r2=.993
Feb-	$\text{tonnage} = 0.4696 * (Q) + 12.8$	r2=.999
Mar-	$\text{tonnage} = 0.3936 * (Q) + 6.7$	r2=.999
Apr-	$\ln(\text{tonnage}) = 0.9350 * \ln(Q) + 0.49354$	r2=.966
May-	$\text{tonnage} = 0.4331 * (Q) + 68.3$	r2=.998
Jun-	$\text{tonnage} = 1.0402 * (Q) - 0.28$	r2=.999
Jul-	$\ln(\text{tonnage}) = 0.9546 * \ln(Q) + 0.08502$	r2=.997
Aug-	$\ln(\text{tonnage}) = 0.8470 * \ln(Q) + 1.030$	r2=.935
Sep-	$\ln(\text{tonnage}) = 0.9539 * \ln(Q) + 0.0925$	r2=.986
Oct-	$\ln(\text{tonnage}) = 0.9352 * \ln(Q) + 0.0778$	r2=.995
Nov-	$\text{tonnage} = 0.9522 * (Q) + 100.5$	r2=.999
Dec-	$\text{tonnage} = 0.9496 * (Q) + 672.2$	r2=.995

Average annual salt load inflow from the Little Colorado River is 119,537 tons, with extreme values ranging from a maximum of 388,948 tons to a minimum of 15,196 tons.

Monthly Salt Gains - for the period 1905 through 1922 the salt load gains are the monthly averages of 1923-1988 values instead of the 1963-1982 monthly averages of the original database. 1989 values were not included in the computation because Progress Report values for that year are still regarded as provisional. The average annual salt load gain from Lees Ferry to Grand Canyon is 886,484 tons, with extreme values ranging from 1,946,108 tons to a minimum of -1,082,123 tons.

GRAND CANYON TO HOOVER DAM - FLOW

The monthly flow gains as acre-feet for the Grand Canyon to Hoover Dam reach for the period January 1923 through December 1990 were computed by:

- + Colorado River below Hoover Dam, NV-AZ
- Colorado River at Grand Canyon, AZ
- Inflow - Virgin River at Littlefield, AZ
- Pumping Returns
- + Pumping from Lake Mead
- + Change in Lake Mead Storage
- + Change in Lake Mead Bank Storage
- + Evaporation from Lake Mead
- = Flow Gains, Grand Canyon to Hoover Dam

Las Vegas Wash near Boulder City was deleted from the gains calculations since CRSS does not use it as an inflow station.

Colorado River Below Hoover Dam - USGS data begins in 1934. Corrections were made for leap years. Flow data for 1905-1933 had been synthesized from Willow Beach flow data for the original database. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Colorado River near Grand Canyon - USGS data begins in 1923. Minor corrections were made for previous data entry errors. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Inflow from Virgin River - USGS data begins in 1930. Data for 1910-1929 is generated from a regression relationship which is documented in the 1985 report. 1905-1909 data values are averages of 1910-1982 monthly values. USGS data was substituted for 1985 and 1986 data, and additional years of data were added to update through 1990. Average annual inflow from the Virgin River is 189,101 acre-feet, with extreme values ranging from a maximum of 506,430 acre-feet to a minimum of 73,181 acre-feet.

Pumping from Lake Mead was computed from Article V data by totaling the historical diversions of the following 10 diverters:

- Robert B. Griffith Project
- Basic Management Inc.
- Nevada State Dept. of Fish and Game
- Pacific Coast Building Products
- Las Vegas Valley Water District
- Boulder City
- Lake Mead National Recreation Area

City of Henderson
City of North Las Vegas
Nellis Air Force Base

Article V data was available for 1964-1990, although each of these diversions had varying and discontinuous periods of record within that time period. The computed data values were larger than those in the previous database by an average of 4% for the years 1964-1970 and by an average of 16% after 1970. Originally, this data had been compiled from USGS water supply papers for "Lake Mead at Hoover Dam", but it is felt that the Article V data is a more accurate reflection of water use. Previous database values will still be used for years prior to 1964 before Article V data is available.

Pumping Returns to Lake Mead - were retrieved from Article V data in the form of Las Vegas Wash return flows for the period 1976-1990. Previously, the returns had been calculated from monthly pumpage using a regression based formula, but the data developed in this way did not match well with the existing Article V Las Vegas Wash return flow data.

To develop new data for the years prior to 1976, a new regression relationship was developed with Las Vegas Wash return flows and Article V pumping data for 1976-1990. An attempt was made to correlate monthly data, but this gave an r squared of only 0.53. A relationship between total annual pumping and returns gave a more acceptable r squared of .901. This equation is:

$$(\text{returns} = .470913 * \text{pumpage} - 15211.3).$$

This relationship was used to generate annual total return values for all years for which there are pumping records. These generated values become negative in years before 1968, indicating that pumping before 1968 was not sufficient to contribute to return flow. The annual totals for 1968-1975 were distributed monthly according to the average monthly percentages calculated from existing Las Vegas Wash return flow data.

Change in Lake Mead Storage - was calculated from USGS data files of Lake Mead contents for which the period of record began in 1941. Several data entry errors were noticed and corrected. A few of these were quite large. Bank storage is assumed to be 6.5 percent of surface storage, so a revised change in bank storage file was calculated as $(.065) \times (\text{change in surface storage})$. Data from the original database file was used for the years 1935-1940.

Evaporation from Lake Mead - historical monthly surface areas were calculated from storage data using the CRSS method and current EQURES card values for the polynomials which describe the content-elevation-area relationship. These surface areas were multiplied by CRSS monthly evaporation coefficients to calculate total monthly evaporation. The calculated values were larger

than those in previous database files by an average of 1.5 percent with some differences as high as 5.7 percent. The previous database files had used the same evaporation coefficients, but their source of surface area data was not presented. This would be the cause of the differences. It was decided that using the CRSS method for determining surface areas is well justified, and the recalculated values were used for the new file. Data from the original database file was used for the years 1935-1940.

Monthly Flow Gains - were calculated for the period 1923-1990 which is the longest common period of record for the component stations. Monthly averages of 1923-1989 data were used for the period 1905-1922. (As discussed earlier, the original database used monthly averages of 1963-1982 data for the period 1905-1962.) The average annual flow gain from Grand Canyon to Hoover Dam is 314,579 acre-feet, with extreme values ranging from 1,031,501 acre-feet to -213,523 acre-feet.

GRAND CANYON TO HOOVER DAM - SALT

The monthly salt gains as tons per month for the Grand Canyon to Hoover Dam reach for the period January 1923 through December 1990 were computed by:

- + Colorado River below Hoover Dam, NV-AZ
- Colorado River at Grand Canyon, AZ
- Inflow - Virgin River at Littlefield, AZ
- + Change in Lake Mead Storage
- + Change in Lake Mead Bank Storage
- = Salt Gains, Grand Canyon to Hoover Dam

Colorado River Below Hoover Dam - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". Data for 1990 was computed from linear interpolation of 6 measurements of TDS by sum of constituents. Daily flow values were used to compute daily salt loads and these were summed to monthly totals. Neither daily flow nor TDS data were available for October-November-December. 1989 monthly average interpolated TDS values were used with the total monthly flow to compute provisional data for this period.

Colorado River Near Grand Canyon - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". Data for 1990 was unavailable, so provisional data was derived by multiplying the 1989 salt/flow ratio by the 1990 flow values.

Virgin River at Littlefield - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". USGS Water Quality Data was available for part of 1990, and a regression relationship was developed between instantaneous flow (Q) and TDS as tons per acre-foot. However when these results were graphed along with other historical data, they did not appear to be realistic. Salt load data for this year was therefore computed by monthly regression relationships developed from 1979-1989 data for monthly salt tonnage vs. flow. The relationships and the corresponding r-squared's are as follows:

Jan -	$\ln(\text{tonnage}) = 0.4473 * \ln(Q) + 6.15$	$r^2 = .947$
Feb -	$\text{tonnage} = 1.0436 * Q + 17424$	$r^2 = .999$
Mar -	$\text{tonnage} = 0.9474 * Q + 20610$	$r^2 = .985$
Apr -	$\ln(\text{tonnage}) = 0.5577 * \ln(Q) + 4.833$	$r^2 = .936$
May -	$\ln(\text{tonnage}) = 0.5058 * \ln(Q) + 5.469$	$r^2 = .878$
Jun -	$\ln(\text{tonnage}) = 0.5438 * \ln(Q) + 5.056$	$r^2 = .981$
Jul -	$\text{tonnage} = 2.530 * Q + 3423$	$r^2 = .966$
Aug -	$\ln(\text{tonnage}) = 0.7002 * \ln(Q) + 3.751$	$r^2 = .904$
Sep -	$\ln(\text{tonnage}) = 0.8288 * \ln(Q) + 2.609$	$r^2 = .944$
Oct -	$\ln(\text{tonnage}) = 0.6556 * \ln(Q) + 4.1918$	$r^2 = .841$
Nov -	$\ln(\text{tonnage}) = 0.6454 * \ln(Q) + 4.2673$	$r^2 = .938$
Dec -	$\text{tonnage} = 1.429 * Q + 14092$	$r^2 = .935$

Average annual salt load inflow from the Virgin River is 402,256 tons, with extreme values ranging from a maximum of 907,577 tons to a minimum of 223,050 tons.

Change in Lake Mead Salt Storage and Bank Salt Storage - were calculated as the monthly Change in Storage or Bank Storage in acre-feet multiplied by the monthly salt load/flow ratio in tons per acre-foot for the Colorado River below Hoover Dam.

Monthly Salt Gains - were calculated for the period 1923-1990. Monthly averages of 1923-1988 data were used for the period 1905-1922. 1989 values were not included in the computation because Progress Report values for that year are still regarded as provisional. The average annual salt load gain from Grand Canyon to Hoover Dam is 712,613 tons, with extreme values ranging from a maximum of 5,764,559 tons to a minimum of -2,085,474 tons.

HOOVER DAM TO DAVIS DAM - FLOW

The monthly flow gains as acre-feet for the Hoover Dam to Davis Dam reach for the period January 1935 through December 1990 were computed by:

- + Colorado River below Davis Dam, NV-AZ
- Colorado River below Hoover Dam, NV-AZ
- + Davis Dam Government Camp Consumptive Use
- + Lake Mead National Recreation Area Consumptive Use
- + Change in Lake Mohave Storage
- + Evaporation from Lake Mohave
- = Flow Gains, Hoover Dam to Davis Dam

The data for Other Article V Consumptive Uses for Nevada was in this reach in the original database files. They were moved to the Davis Dam to Parker Dam reach for the interim update.

Colorado River below Davis Dam - USGS data begins in 1950. The original database contained data for 1935-1949 which was synthesized by regression using Topock and Davis gages as independent variables for the period 1950-1982. In the interim update the credibility of this relationship was questioned since the flow values it had generated seemed unrealistically large. A new regression relationship was calculated using a different period of record, 1951-1960, for the independent variables (excluding years after a channel had been dredged in the area) to generate acceptable values. This revised data will be maintained for the years 1935-1949. USGS data was substituted for the years 1950, 1985, and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Colorado River Below Hoover Dam - USGS data begins in 1934. Corrections were made for leap years. Flow data for 1905-1933 had been synthesized from Willow Beach flow data for the original database. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Davis Dam and Government Camp Consumptive Use - Article V data began in 1972. A few minor data entry errors were corrected.

Lake Mead National Recreation Area (AZ) - Article V data began in 1964. A few minor data entry errors were corrected.

Change in Lake Mohave Storage - was calculated from USGS data files of Lake Mohave contents for which the period of record began in 1950. Four of the recalculated values were significantly different from the corresponding values in the

previous database file. USGS data was added to update through 1990.

Evaporation from Lake Mohave - historical monthly surface areas were calculated from storage data using the CRSS method and current EQURES card values for the polynomials which describe the content-elevation-area relationship. These surface areas were multiplied by CRSS monthly evaporation coefficients to calculate total monthly evaporation. The recalculated data was found to be very consistent with original database values with differences averaging only .1 percent. The file was updated through 1990.

Monthly Flow Gains - As previously discussed, flow gains for the original database were calculated for the period 1963-1982 and monthly averages of that data were used for the 1905-1963 gains. In the interim update, gains were calculated for 1951-1986, and 1951-1985 averages were used for the 1905-1950 gains. This was apparently done out of concern for the reliability of the 1934-1949 generated flow data for Colorado River at Davis Dam, even though that data had been significantly improved by a revised regression relationship.

For the current revision of the database, flow gains were calculated for the period of record 1935-1990 which is common to all of the component stations. Monthly averages of 1935-1989 data were used for 1905-1934. The average annual flow gain from Hoover Dam to Davis Dam is 117,176 acre-feet, with extreme values ranging from a maximum of 521,187 acre-feet to a minimum of -330,056 acre-feet.

HOOVER DAM TO DAVIS DAM - SALT

The monthly salt gains as tons per month for the Hoover Dam to Davis Dam reach for the period January 1935 through December 1990 were computed by:

+ Colorado River below Davis Dam, NV-AZ
- Colorado River below Hoover Dam, NV-AZ
+ Change in Lake Mohave Storage
= Salt Gains, Hoover Dam to Davis Dam

Colorado River below Davis Dam - the documentation for the interim database file through 1986 stated that the monthly salt tonnage for this station had been updated by multiplying the new flow values by the original monthly salt to flow ratios for each month of each year. Examination of the two files revealed that they were identical, however. The salt to flow ratios of the original database files were therefore used with the currently

revised flow data through 1982, and data from the interim file was used for 1983-1985. USGS water quality data was not available for the period 1986-1990, and therefore the salt load was computed using the regression relationship with the salinities below Hoover Dam and below Parker Dam as derived for the 1941-1969 period in the original database. This is documented in the May 1985 report.

Colorado River Below Hoover Dam - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". Data for 1990 was computed from linear interpolation of 6 measurements of TDS by sum of constituents. Daily flow values were used to compute daily salt loads and these were summed to monthly totals. Neither daily flow nor TDS data were available for October-November-December. 1989 monthly average interpolated TDS values were used with the total monthly flow to compute provisional data for this period.

Change in Salt Storage of Lake Mohave - was computed by multiplying the Change in Storage in acre-feet by the salt to flow ratio of the Colorado River below Davis Dam.

Monthly Salt Gains - were calculated for the period 1935-1990. Monthly averages of 1935-1988 data values were used for the period 1905-1934. 1989 values were not included in the computation because Progress Report values for that year are still regarded as provisional. The average annual salt load gain from Hoover Dam to Davis Dam is 180,385 tons, with extreme values ranging from a maximum of 845,990 tons to a minimum of -382,996 tons.

DAVIS DAM TO PARKER DAM - FLOW

The monthly flow gains as acre-feet for the Davis Dam to Parker Dam reach for the period January 1935 to December 1990 were computed by:

- + Colorado River below Parker Dam, AZ-CA
- Colorado River below Davis Dam, AZ-NV
- Inflow from Bill Williams River below Alamo Dam, AZ
- + Other Article V Consumptive Uses in Nevada
- + Other Article V Consumptive Uses in Arizona
- + Other Article V Consumptive Uses in California
- + Five Newly Counted Consumptive Uses
- + Export to Mohave Steam Plant (Southern CA Edison)
- + Export to Central Arizona Project
- + Arizona Mohave Indian Consumptive Use
- + California Mohave Indian Consumptive Use
- + Mohave Irrigation District Consumptive Use
- + City of Needles and San Bernardino County Consumptive Use
- + Lake Havasu Irrigation District Consumptive Use
- + Consumptive Uses Prior to 1964
- + Export to Metropolitan Water District
- + Export for Phreatophytes
- + Evaporation from Lake Havasu
- + Change in Lake Havasu Storage
- = Flow Gains, Davis Dam to Parker Dam

Colorado River below Parker Dam - USGS data begins in 1935. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Colorado River below Davis Dam - USGS data begins in 1950. The original database contained data for 1935-1949 which was synthesized by regression using the Topock Davis gages as independent variables for the period 1950-1982. In the interim update the credibility of this relationship was questioned since the flow values it had generated seemed unrealistically large. A new regression relationship was calculated using a different period of record, 1951-1960, for the independent variables (excluding years after a channel had been dredged in the area) to generate acceptable values. This revised data will be maintained for the years 1935-1949. USGS data was substituted for the years 1950, 1985, and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Bill Williams River below Alamo Dam - the original database used USGS data for this station gage beginning in 1946. USGS data for the Planet, AZ gage was used for the period 1914-1945, and average values of 1914-1945 data were used for 1906-1913. A

recalculation of these averages yielded values different from those in the existing file. Currently, USGS data for the Alamo Dam gage is available beginning in 1940, and except for the year 1940 this data matched the Planet, AZ data for the overlapping period. Average values for 1905-1913 were recalculated from 1914-1939 Planet gage data. USGS data was substituted for the years 1940, 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990. Average annual inflow from the Bill Williams River is 104,138 acre-feet, with extreme values ranging from a maximum of 580,285 acre-feet to a minimum of 1,274 acre-feet.

Other Article V Consumptive Uses for Nevada - Article V data was available as yearly total consumptive use. These totals did not always match the totals of the previous database files, which appeared to have many years of repeated data. The years of file data which were correct were used to determine average monthly distribution ratios which were then applied to the Article V yearly totals for the remaining years. The new file then is a combination of previous correct data file entries and newly calculated and updated values.

Other Article V Consumptive Uses for Arizona and California - after close examination of previous database files for 'Miscellaneous' or 'Other' consumptive use, it became apparent that this data needed some revision. All of the Davis Dam to Imperial Dam 'others' for Arizona had been counted in the Parker to Imperial reach, while all of the Davis Dam to Imperial Dam 'others' for California had been counted (sometimes twice) in the Davis to Parker reach.

Working directly from the Article V records for each year, new data files have now been compiled as 'Other Article V Consumptive Uses' for each reach and each state separately.

For Arizona, any user north of the geographical reference T11N was counted in the Davis to Parker reach and any user in or south of that area was counted in the Parker to Imperial reach. For California, Parker Dam is located on the line between T2N and T3N, so any user in or north of T2N was counted in the Davis to Parker reach and any user in or south of T3N was counted in the Parker to Imperial reach.

Mohave Indian Consumptive Use (Arizona and California) - Article V data begins in 1975 for both states. No changes to previous database values were necessary. Monthly values for California 1987-1989 are averages from an annual total. Article V data was added to both files to update through 1990.

Mohave Irrigation District Consumptive Use - Article V data begins in 1964. No changes to previous database values were

necessary. Article V data was added to update through 1990.

City of Needles and San Bernardino County Consumptive Use - Article V data begins in 1964. Data in the previous database file began in 1905, and these values (1905-1963) were moved to the file for Consumptive Uses Prior to 1964 in order to maintain continuity with the structure of the other consumptive use files. Examination of the existing data revealed the need for some revisions. 1969 data was total diversions rather than consumptive use, 1982 data was repeated from 1981, and 1981, 85, and 86 did not include San Bernardino County data. Article V data was simply used for the entire new data file.

Lake Havasu Irrigation District - Article V data begins in 1969. No changes to previous database values were necessary. Article V data was added to update through 1990.

Miscellaneous Article V Consumptive Uses - These are five diverters which were not included in previous database versions but which are listed individually in the Article V reports. They will now be included in the calculation of the reach gains.

<u>Diversion Name</u>	<u>Record</u>
Havasu National Wildlife Refuge	1966-1990
Mohave Water Conservation District	1980-1990
Consolidated Water Utilities	1983-1990
Mohave County Parks	1985-1990
Bullhead City	1987-1990

Consumptive Use Prior to 1964 - Values for consumptive use for the City of Needles prior to 1964 were moved (added) to this file from the site specific file in an effort to maintain continuity with the structure of the other consumptive use files. Otherwise, no changes were made to previous database values. These values had been derived from yearly crop records and climatological data by using the Blaney Criddle formula to estimate consumptive use.

Export to Mohave Steam Plant (SCE) - Article V data begins in 1967. Five minor data entry corrections were made. Article V data was added to update through 1990.

Export to Central Arizona Project - Data for this diversion begins in 1985. The previous database files, USGS data, and Article V data were each different from the other by a few percentage points. Article V data will be used for the revised database file.

Export to Metropolitan Water District - USGS data for this diversion begins in 1939. The previous database files, USGS data, and Article V data were each different from the other by a few percentage points. Article V data will be used for the new database file.

Export for Phreatophytes - these values were calculated from historical acreage of native vegetation and climatological data using the Blaney-Criddle formula for consumptive use. A detailed description of the method and example calculations are presented in the appendix. Significant changes were made to this data.

Changes in Lake Havasu Storage - previous database values for the years 1976 and 1977 and for eight other monthly values were found to be in error and were replaced with values calculated from USGS data. USGS data was added to update through 1990.

Evaporation from Lake Havasu - historical monthly surface areas were calculated from storage data using the CRSS method and current EQURES card values for the polynomials which describe the content-elevation-area relationship. These surface areas were multiplied by CRSS monthly evaporation coefficients to calculate total monthly evaporation. The file was updated through 1990. The calculated values were found to be quite different from those in previous database files. It was decided that using the CRSS method for determining surface areas is well justified, and the recalculated values were used for the new file.

Monthly Flow Gains - were computed for the period 1935-1990. Monthly averages of 1935-1989 data were used for the period 1905-1934. There were some substantial differences relative to the previous database in many individual monthly values due to the changes in the consumptive use, Lake Havasu storage, and evaporation data. These differences affected the calculations of monthly averages, as did the inclusion of 1986-1989 data in the average calculations. The average annual flow gain from Davis Dam to Parker Dam is 87,237 acre-feet, with extreme values ranging from a maximum of 454,981 acre-feet to a minimum of -241,522 acre-feet.

DAVIS DAM TO PARKER DAM - SALT

The monthly salt gains as tons per month for the Davis Dam to Parker Dam reach for the period January 1935 to December 1990 were computed by:

- + Colorado River below Parker Dam, AZ-CA
- Colorado River below Davis Dam, AZ-NV
- Inflow from Bill Williams River below Alamo Dam, AZ
- + Export to Mohave Steam Plant (Southern CA Edison)
- + Export to Central Arizona Project
- + Export to Metropolitan Water District
- + Export for Phreatophytes
- + Change in Lake Havasu Storage
- = Salt Gains, Davis Dam to Parker Dam

Colorado River below Parker Dam - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". 1990 values were taken from Intensive Salinity Surveillance Program (ISSP) data.

Colorado River below Davis Dam - the documentation for the interim database file through 1986 stated that the monthly salt tonnage for this station had been updated by multiplying the new flow values by the original monthly salt to flow ratios for each month of each year. Examination of the two files revealed that they were identical, however. The salt to flow ratios of the original database files were therefore used with the currently revised flow data through 1982, and data from the interim file was used for 1983-1985. USGS water quality data was not available for the period 1986-1990, and therefore the salt load was computed using the regression relationship with the salinities below Hoover Dam and below Parker Dam as derived for the 1941-1969 period in the original database. This is documented in the May 1985 report.

Bill Williams River below Alamo Dam - Monthly salt tonnage for the period 1983-1986 was computed for the interim update by 1 year moving log(TDS) vs log(Q) regressions with instantaneous flow and TDS values retrieved from USGS data. The salt load was computed daily using the mean daily discharge record and regression relations. Daily salt load was summed for monthly totals. Average annual salt load inflow from the Bill Williams River is 47,241 tons, with extreme values ranging from a maximum of 203,542 tons to a minimum of 983 tons.

No EC or TDS data was available for the period which followed. Regression relationships for each month were developed from 1975-1985 data for monthly salt tonnage vs. flow and these were used to compute 1986-1990 data. The relationships and the corresponding r-squared's are as follows:

Jan -	$\ln(\text{tonnage}) = 0.9404 * \ln(Q) + 0.044$	$r2 = .986$
Feb -	$\text{tonnage} = 0.4166 * Q + 315.84$	$r2 = .991$
Mar -	$\ln(\text{tonnage}) = 0.896 * \ln(Q) + 0.279$	$r2 = .983$
Apr -	$\ln(\text{tonnage}) = 0.881 * \ln(Q) + 0.395$	$r2 = .981$
May -	$\text{tonnage} = 0.35395 * Q + 278$	$r2 = .966$
Jun -	$\ln(\text{tonnage}) = 0.911 * \ln(Q) + 0.168$	$r2 = .997$
Jul -	$\ln(\text{tonnage}) = 0.912 * \ln(Q) + 0.139$	$r2 = .995$
Aug -	$\ln(\text{tonnage}) = 0.919 * \ln(Q) + 0.167$	$r2 = .996$
Sep -	$\ln(\text{tonnage}) = 0.971 * \ln(Q) + 0.2075$	$r2 = .998$
Oct -	$\ln(\text{tonnage}) = 0.906 * \ln(Q) + 0.469$	$r2 = .930$
Nov -	$\ln(\text{tonnage}) = 0.913 * \ln(Q) + 0.382$	$r2 = .924$
Dec -	$\text{tonnage} = 0.3905 * Q + 1049$	$r2 = .919$

Export to Mohave Steam Plant - salt load values were calculated as acre-feet of water exported * the salt load to flow ratio below Davis Dam.

Export to Central Arizona Project - salt load values were calculated as acre-feet of water exported * the salt load to flow ratio below Parker Dam.

Export for Phreatophytes - salt load values were calculated as acre-feet of water exported * the salt load to flow ratios below Parker Dam.

Export to Metropolitan Water District - salt load values were calculated as acre-feet of water exported * the salt load to flow ratios below Parker Dam.

Change in Lake Havasu Salt Storage - salt load values were calculated as acre-feet of storage change * the salt load to flow ratios below Parker Dam.

Monthly Salt Gains - were calculated for the period 1935-1990. Monthly averages of 1935-1988 data values were used for the period 1905-1934. 1989 values were not included in the computation because Progress Report values for that year are still regarded as provisional. The average annual salt load gain from Davis Dam to Parker Dam is 2,210 tons, with extreme values ranging from a maximum of 465,777 tons to a minimum of -400,649 tons.

PARKER DAM TO IMPERIAL DAM - FLOW

The monthly flow gains as acre-feet for the Parker Dam to Imperial Dam reach for the period January 1935 to December 1990 were computed by:

- + Colorado River above Imperial Dam, AZ-CA
- Colorado River below Parker Dam, AZ-CA
- + Cibola National Wildlife Refuge Consumptive Use
- + Palo Verde Irrigation District Consumptive Use
- + Colorado River Indian Reservation Consumptive Use
- + Imperial National Wildlife Refuge Consumptive Use
- + Town of Parker Consumptive Use
- + Parker Dam and Government Camp Consumptive Use
- + Two Newly Counted Consumptive Uses
- + Other Article V Consumptive Uses in Arizona
- + Other Article V Consumptive Uses in California
- + Export for Phreatophytes
- = Flow Gains, Parker Dam to Imperial Dam

Colorado River above Imperial Dam - USGS data is available for 1934-1942 and for 1976-1990. For previous database files, data for 1941-1980 was taken from Interior's Progress Report No. 11 (1983). There were no significant differences between existing data values and USGS values. USGS data was added to update through 1990.

Colorado River below Parker Dam - USGS data begins in 1935. USGS data was substituted for 1985 and 1986 where existing database values differed from USGS values by more than 1 percent, and additional years of data were added to update through 1990.

Cibola National Wildlife Refuge Consumptive Use - Article V data begins in 1976. A few minor data entry errors were corrected from the previous database file. Article V data was added to update through 1990.

Palo Verde Irrigation District Consumptive Use - Article V data begins in 1964. Data values for the period 1935-1963 had been developed for the original database from annual total diversion figures by a method presented in Appendix 8 of the 1985 report. It was not possible to check the 1935-1963 values, and they stand as originally developed. Corrections were made to data values for 1982. Article V data was added to update through 1990.

Colorado River Indian Reservation Consumptive Use - has components from both Arizona and California. Article V data begins in 1964. Data values for the period 1935-1963 were from USGS records. It was not possible to verify the '35-'63 values, and they stand as originally developed. A few minor data entry errors after 1963 were corrected. Article V data was added to

update through 1990.

Imperial National Wildlife Refuge Consumptive Use - Article V data begins in 1966, and consists mostly of annual values. Annual totals computed from data in the interim database file through 1986 were different in many cases. Average monthly distributions were calculated for the years where the annual totals for the two files matched. Article V totals for the remaining years were then distributed monthly according to these monthly distributions.

Town of Parker Consumptive Use - Article V data begins in 1964. The data for 1935-1963 was synthesized from population data for the town of Parker by a method detailed in the original database report. No changes to previous database values were necessary. Article V data was added to update through 1990.

Parker Dam and Government Camp Consumptive Use - Article V data begins in 1972. Some minor data entry errors in years 1974-1976 were corrected. Article V data was added through 1990.

Miscellaneous Consumptive Uses - These are two diverters which were not included in previous database versions but which are listed individually in the Article V reports. They will now be included in the calculation of the reach gains.

<u>Diversion Name</u>	<u>Record</u>
Ehrenburg Improvement Association	1981-1990
Cibola Valley Irrigation District	1983-1990

Other Article V Consumptive Uses for Arizona and California - after close examination of previous database files for 'Miscellaneous' or 'Other' consumptive use, it became apparent that this data needed some revision. All of the Davis Dam to Imperial Dam 'others' for Arizona had been counted in the Parker to Imperial reach, while all of the Davis Dam to Imperial Dam 'others' for California had been counted (sometimes twice) in the Davis to Parker reach.

Working directly from the Article V records for each year, new data files have now been compiled as 'Other Article V Consumptive Uses' for each reach and each state separately.

For Arizona, any user north of the geographical reference T11N was counted in the Davis to Parker reach and any user in or south of that area was counted in the Parker to Imperial reach. For California, Parker Dam is located on the line between T2N and T3N, so any user in or north of T2N was counted in the Davis to Parker reach and any user in or south of T3N was counted in the Parker to Imperial reach.

Export for Phreatophytes - these values were calculated from historical acreage of native vegetation and climatological data using the Blaney-Criddle formula for consumptive use. A detailed description of the method and example calculations are presented in the appendix. Significant changes were made to this data.

Monthly Flow Gains - were computed for the period 1935-1990. Monthly averages of 1935-1989 data were used for the period 1905-1934. There were some differences relative to the previous database in many individual monthly values due to the changes in consumptive use data. These differences, as well as the inclusion of 1986-1989 data in the computation, affected the values calculated for monthly averages. The average annual flow gain from Parker Dam to Imperial Dam is 159,285 acre-feet, with extreme values ranging from a maximum of 602,929 acre-feet to a minimum of -446,042 acre-feet.

PARKER DAM TO IMPERIAL DAM - SALT

The monthly salt gains as tons for the Parker Dam to Imperial Dam reach for the period January 1935 to December 1990 were computed by:

- + Colorado River above Imperial Dam, AZ-CA
- Colorado River below Parker Dam, AZ-CA
- + Palo Verde Irrigation District Salt Pickup
- + Colorado River Indian Reservation Salt Retention
- + Export for Phreatophytes
- = Flow Gains, Parker Dam to Imperial Dam

Colorado River above Imperial Dam - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". 1990 values were taken from Intensive Salinity Surveillance Project (ISSP) data.

Colorado River below Parker Dam - monthly salt tonnage was updated for the period 1941 through 1989 from "Quality of Water Colorado River Basin Progress Report No. 15". 1990 values were taken from ISSP data.

Palo Verde Irrigation District Salt Pickup - monthly salt tonnage was updated for the period 1986-1990 from ISSP data.

Colorado River Indian Reservation Salt Retention - monthly salt tonnage was updated for the period 1986-1990 from ISSP data.

Export for Phreatophytes - salt load values were calculated as acre-feet of water exported * the salt load to flow ratios above

Imperial Dam.

Monthly Salt Gains - were calculated for the period 1935-1990. Monthly averages of 1935-1988 data values were used for the period 1905-1934. 1989 values were not included in the computation because Progress Report values for that year are still regarded as provisional. The average annual salt load gain from Parker Dam to Imperial Dam is 101,684 tons, with extreme values ranging from a maximum of 1,194,273 tons to a minimum of - 800,783 tons.

APPENDIX 1

PHREATOPHYTE CONSUMPTIVE USE

Evapotranspiration (consumptive use) by native phreatophytes is included in the calculations of flow gains for two reaches - Davis Dam to Parker Dam and Parker Dam to Imperial Dam. It is generally accepted that no simple solution is available for estimating such consumptive use for a specific locality, depth to water table, and density of growth.

The approach used to construct the original Lower Colorado Region database involved considerable agricultural engineering judgement in the estimation of the various parameters used in the calculations. An appendix to the documentation of 1985 presented the method that was used, and this report is intended to clarify that procedure as well as to document changes that have been made to it.

A widely used method for estimating consumptive use is the Blaney-Criddle formula, which is based on the assumption that with ample moisture available, evapotranspiration is affected primarily by temperature, duration of daylight, and type of vegetation. The basic equation is:

$$u = kf$$

where

- u is the monthly consumptive use in inches;
- k is an empirical consumptive-use coefficient which varies by month and by species of vegetation;
- f is a climatic factor derived by multiplying the mean monthly temperature in degrees Fahrenheit (T) by the monthly percentage of total daytime hours in the year (P) such that $f = TP/100$.

The monthly consumptive use values can be totalled over a year to get an annual value.

A chart of monthly percentage of daylight hours is included.

Consumptive Use Coefficients - A common modification of the k factor which was used for this application is to let $k = k_t \times k_c$, where k_t is related to the mean monthly air temperature by the formula $k_t = .0173T - .314$, and k_c is a coefficient reflecting the growth stage of the plant. The 1985 report did not mention using this approach, but after considerable examination of the data it became clear that this was indeed the way that "k" was calculated for the database at that time.

The annual consumptive use coefficients ("k" factors) for the individual phreatophyte types were retrieved from data found in "Determining Consumptive Use and Irrigation Water Requirements," Bulletin No. 1275, Agricultural Research Service, USDA. These annual "k" factors were distributed monthly using alfalfa as a model, and these values were used as the monthly "kc" factors. Alfalfa's distribution would most closely resemble those of the phreatophytes since it is a deep rooted plant using approximately the same amount of water and is perennial.

An error was discovered in the calculations of the monthly "kc" factor for Arrowweed as presented in the 1985 report. An annual total value of 15.6 was used as opposed to the value of 10.8 which would follow the same convention (multiplying the annual "k" by 12) used for the other plant types. New monthly values of "kc" for Arrowweed were computed and produced changes in the resulting monthly consumptive use values.

Temperature Data - For the Davis Dam to Parker Dam reach, temperature values for Parker Reservoir, CA were used (Table 1). For the Parker Dam to Imperial Dam reach, temperature values for Blythe, CA were used (Table 2). These areas were chosen since they best represent the temperatures of their respective reaches. Temperature data was collected from National Oceanic and Atmospheric Association reports. For months in which no data existed, averages for the available record were used.

These monthly temperature values were used to calculate the monthly kt component of the "k" factor and also to calculate the climatic factor "f".

Acreage Data - Phreatophyte acreages for 1960 were taken from Reclamation's reconnaissance report on Lower Colorado River Water Salvage Phreatophyte Control (June 1963). Acreages for 1976 were taken from Anderson's and Ohmart's annual report on the densities of birds and mammals in the Lower Colorado Valley (Anderson and Ohmart, 1977). For this update, acreages for 1986 were taken from "1986 - Mapping Methods and Vegetation Changes Along the Lower Colorado River Between Davis Dam and the Border with Mexico" by Gordon L. Younker and Chris W. Anderson of AAA Engineering and Drafting, Inc., Salt Lake City.

Acreages for the years between 1960 and 1976 were found from a straight line interpolation between the 1960 and 1976 values. A similar interpolation was performed to find acreage values for 1977-1985 from the known 1976 and 1986 values. Acreages after 1986 were held constant at the 1986 value for lack of more recent data.

Final Calculations - Consumptive use for the time period 1960-1990 was then calculated from the acreage values, climatological data, and the calculated coefficients. An overall density factor of 0.56 was applied to the results.

Data Before 1960 - The 1985 database reports that consumptive use data for 1935 through 1959 were interpolated between 1914 and 1942 (for Parker to Imperial) or 1945 (for Davis to Parker) annual values of consumptive use by native vegetation (Water Supply, 1952; Supplements I and II, 1963) and the 1960 annual total of consumptive use as calculated by the above procedure. Annual consumptive use values had been distributed according to the average monthly distribution observed in the 1960 to 1982 data.

Since the 1960-1990 data has now been changed by corrections in the computational methods, the new 1960 annual total warrants a revision of the 1942/45-1960 interpolation, and the new 1960-1990 monthly values warrant a revision of the monthly average distribution ratios. New total annual values for years 1942 (Parker to Imperial) or 1945 (Davis to Parker) through 1959 were calculated based on the revised total consumptive use value for 1960, and all monthly values through 1959 were redistributed according to recalculated average monthly distributions for 1960-1989.

The previous database files for phreatophyte usage showed data beginning in 1905 but there is no explanation of how it was developed. The 1905-1914 annual values were redistributed according to the new distribution factors and have been preserved in the new file. However, data for this period is not included in reach gain calculations.

**** Note on Precipitation Data** - Precipitation data was made available in the 1985 report, but it was not used in the calculations of consumptive use. Any precipitation on the watershed is counted as part of natural runoff which shows up in the gains in river flow. In other words it is part of the water in the system. If consumptive use by phreatophytes was calculated exclusive of precipitation, that precipitation would in effect be counted twice in the gains of the reach. For that reason then, it does not need to be subtracted from the phreatophytes' consumptive use.

APPENDIX 2A

FLOW MODEL STATIONS

LEES FERRY TO GRAND CANYON

Colorado River at Lees Ferry – Flow in Acre–Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	353600	394400	639200	1264800	3019200	3672000	1564000	734400	530400	571200	476000	380800	13600000
1906	452400	504600	817800	1618200	3862800	4698000	2001000	939600	678600	730800	609000	487200	17400000
1907	546000	609000	987000	1953000	4662000	5670000	2415000	1134000	819000	882000	735000	588000	21000000
1908	288600	321900	521700	1032300	2464200	2997000	1276500	599400	432900	466200	388500	310800	11100000
1909	551200	614800	996400	1971600	4706400	5724000	2438000	1144800	826800	890400	742000	593600	21200000
1910	325000	362500	587500	1162500	2775000	3375000	1437500	675000	487500	525000	437500	350000	12500000
1911	377000	434000	1010000	1200000	2990000	3710000	2090000	562000	409000	1130000	442000	353000	14707000
1912	346000	327000	538000	891000	3520000	5740000	2710000	1030000	529000	622000	533000	299000	17085000
1913	353000	311000	520000	1780000	2980000	2750000	1510000	492000	594000	645700	535300	327800	12798800
1914	363500	399100	873500	1538000	4448000	5887000	2623000	1051000	612000	946200	523800	331300	19596400
1915	302100	393300	520300	1439000	2296000	3249000	1602000	462500	420700	511600	407700	340900	11945100
1916	389600	420000	1386000	1758000	3525000	4228000	2064000	1594000	661300	1390000	492000	366700	18274600
1917	259900	350500	503500	1528000	3678000	7274000	4242000	1126000	648000	464400	445500	401400	20921200
1918	350400	372300	654000	875500	2499000	4725000	1714000	548000	570400	537100	494000	407700	13748300
1919	686800	312400	649600	1356000	2930000	1997000	948300	537900	384600	358500	403700	390800	10955400
1920	404200	598500	681500	968000	5679000	6446000	2401000	921700	466700	514400	594500	402100	20077600
1921	408700	453500	941100	897000	3938000	5952000	2210000	1634000	746500	472407	415107	448128	20516442
1922	348947	437084	905111	1157967	4448078	9125166	1438216	704043	420522	288873	398743	396539	16069289
1923	372620	338504	446775	1275192	3608760	4560463	2324265	1348443	878294	726794	645629	421196	16946935
1924	309164	504349	505435	1634602	3054749	3126393	996114	298096	239865	356264	389785	272579	11687368
1925	258621	400373	601849	1293639	2124428	2385555	1436371	729254	1063354	999803	606951	444500	12344698
1926	357986	350223	639480	1577478	3356042	3432248	1382261	534888	294669	427530	331740	376986	13061531
1927	334374	385767	601112	1212712	3862708	3642896	2405430	925402	2033881	935240	733607	439889	17513108
1928	466759	459827	750775	983618	4339858	3702996	1527579	622264	344663	605231	566904	341446	14711090
1929	328533	342781	919253	1673876	4069924	4805029	2005140	1890771	1638768	921713	558633	435708	19590129
1930	294776	481348	568953	1704818	1976240	3067483	1060677	1461582	520312	547924	422664	287090	12398667
1931	262187	364663	426546	564048	1155369	1384086	447329	245708	267892	499164	350841	250012	6217845
1932	270857	555082	671454	1636983	3975232	3617309	2011289	926017	485323	334313	377381	377381	15132404
1933	270057	252587	497380	495260	1435142	3972554	1112942	337203	373215	374035	296454	316666	9733495
1934	306151	300905	332960	453428	1096340	510017	130540	127158	132875	151938	178932	227232	3948567
1935	253579	272469	337449	652175	1401323	4063496	1473420	520377	424806	346672	318649	264462	10266877
1936	260342	314585	457659	1324581	3590928	2648568	1002877	864528	541198	346672	441527	314329	12107794
1937	197255	410370	697894	1512617	3475330	2352233	1318928	400229	403444	452432	376429	382520	11979681
1938	317404	346168	784593	1610800	3356042	4666382	1721678	501623	899716	562435	468780	400536	15636157
1939	340154	293185	799965	1153802	2490284	1664950	418245	220129	547506	323307	307403	279986	8838826
1940	255116	294970	431280	680737	2022357	1487625	391743	178624	402789	684982	401242	357740	7589205
1941	348271	422922	668380	1091322	4974420	4004091	1666338	797506	608141	1797309	902691	575717	17857108
1942	406746	396319	630257	2844339	3209085	4201648	1317084	453785	275270	334251	368295	357187	14794366
1943	329517	332339	516319	1449542	2158246	2729494	1428993	792587	447359	377478	456403	394941	11413218
1944	278481	343921	509063	1026461	3250282	4135598	1781937	417261	228737	341569	383510	320171	13016991
1945	325151	351500	636987	755118	2805105	2760437	1668183	1011486	370240	505251	443253	336465	11769126
1946	365918	319121	495597	1013370	1732131	1992822	729868	478442	309664	402627	446638	8750760	
1947	277252	356665	654238	780111	3121356	3275155	1926435	1203330	584101	818412	585291	465714	14047860
1948	406193	457814	645014	1702438	3506689	3339421	979512	531384	229987	330562	407609	346734	12883357
1949	337264	360830	706503	1307325	3098406	4419436	2136725	575840	313472	509002	472827	368009	14605639
1950	349808	398652	649933	1216877	1970706	2978820	1377342	421688	330015	341569	349830	415109	10800349
1951	315252	360553	417630	531082	1645432	2886588	1356436	787053	410704	412096	445038	333452	9901316
1952	476044	379239	439764	2266545	5080795	5192406	1572876	820871	541912	368501	386485	378462	17903902
1953	393772	365329	457659	528940	1047764	2991911	949997	661001	257954	320663	413917	340892	8729799
1954	318510	341836	392789	546315	1274801	792012	647474	321031	388806	512261	348818	278481	6164834
1955	244048	243256	597775	617662	1569801	2664043	570613	509617	229689	213473	275627	326442	6966606
1956	372928	280475	510723	897930	2190220	2593823	556717	355772	166078	184656	300203	246876	8658301
1957	284507	323398	498549	827715	2568990	5644644	4015199	1604235	822359	747700	847946	516565	18701807
1958	397031	535886	696050	1573907	3991833	3678004	627798	286229	319423	310517	357149	366226	13140053
1959	314575	315289	343844	419748	1024398	1835729	782134	425009	245904	502054	499425	351776	7059915
1960	304983	318497	745241	1609610	1564267	2239173	646859	207893	193094	340646	345427	274669	8790359
1961	265692	330673	361921	567142	1152909	1588188	368808	336650	710490	724949	526917	380122	7314461
1962	348640	790861	598099	2390911	3632741	2875877	1717374	469096	314960	539439	428079	332653	14438730
1963	168909	368828	187786	60517	62103	140432	89650	61796	59862	61489	59505	62718	1383595
1964	70896	230546	388300	770590	318879	59565	60074	174381	156408	268520	347509	397585	3243343
1965	558254	514615	556163	1222233	2283683	2322670	727409	870677	750358	659157	589338	531076	11586633
1966	451141	483181	621649	825334	977667	753928	657312	681907	622422	551859	583566	552167	7738583
1967	614332	534387	689901	787846	878671	697994	641325	692361	596240	414740	459736	552167	7559700
1968	433332	463968	857785	968146	942619	894360	827020	684982	634918	625338	633728	637636	8803812
1969	569629	460743	708348	870558	763072	875319	955531	929706	793797	629642	706324	814723	9077392
1970	706503	445026	486128	941964	899577	800342	768606	772910	700969	498118	448906	670225	8139274
1971	491478	416091	640095	1010990	925402	894360	942619	876211	775945	584325	764044	937085	9258645
1972	805499	444469	377478	782491	902036	862822	914949	1005337	930658	631487	671216	1017020	9345462
1973	1207019	763648	1095110	1677446	648089	750953	656082	566617	424271	509863	412429	333083	9044610
1974	846082	299239	388484	494546	803465	913997	1226696	1212553	826524	602464	710490	564157	8888887
1975	767991	555935	507588	458843	892198	987188	1220547	1021324	966361	637021	424985	520131	8960112
1976	691746	742027	675759	659910	1045919	756309	766147	720030	841996	791972	897335	810418	9399568
1977	994269	471018	458397	163698	205556	463805	847312	1177805	977072	379138	389996	823331	7353097
1978	947538	601477	579222	492285	647474	758094	701584	1064981	968741	684367	671216	889124	9066103

Colorado River at Lees Ferry – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	1018250	746431	204388	341440	517364	614092	859609	1063751	686093	617969	802127	637636	8109140
1980	604125	615480	605723	862822	845467	1472154	1585174	1278346	981237	777215	936014	765532	11329289
1981	745241	640353	462639	472648	552905	526976	845467	903266	667051	608675	584756	838088	7848065
1982	892198	677008	508694	613497	616115	634323	796891	916794	617067	792587	974692	976437	9016303
1983	913626	860509	660496	951252	1258710	3313783	3369519	1833321	1588759	1576065	1415801	1441189	19183030
1984	1438214	1383272	1474512	1493553	2548759	2540230	2207007	1563569	1417189	1336085	1473917	1497917	20374224
1985	1545000	1485000	1245000	1224000	2116000	2393000	1751000	1634000	1393000	719700	708300	673100	16887100
1986	997100	1151000	1525000	1733000	2757000	2085000	1330000	1554000	1614000	1153000	1254000	1538000	18691100
1987	1615000	1136000	838600	798900	762000	987500	1090000	1282000	973100	518400	717500	795600	11514600
1988	822200	782700	691000	562700	555800	526700	712100	771000	688100	511200	598300	626700	7848500
1989	731700	648100	587400	540700	527600	737300	810600	866100	794800	556100	589300	646800	8036500
1990	689900	593100	640300	585600	629300	751100	791500	974000	712800	453300	490300	581900	7893100

Colorado River Near Grand Canyon -- Flow in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	390019	430284	671875	1289273	3020673	3664915	1584551	765827	564501	604767	510815	416863	13914363
1906	487524	539040	848134	1638040	3853213	4677464	2015822	968337	710758	762274	642071	521868	17664545
1907	579897	642071	1015115	1968451	4641936	5636721	2424394	1160188	849318	911492	766419	621346	21217348
1908	325871	358735	555915	1059821	2472949	2998764	1300820	632597	468280	501143	424462	347780	11447137
1909	585029	647795	1024392	1986807	4685754	5690013	2447093	1170847	857016	919782	773327	626873	21414728
1910	361794	398803	620853	1188315	2779674	3371808	1459709	707206	522164	559172	472819	386466	12828783
1911	413112	469365	1037814	1225323	2991856	3702416	2103655	595087	444893	1156241	477260	389427	15006849
1912	382519	363768	572002	920374	3514907	5705803	2715527	1057552	563120	654901	567067	336135	17533668
1913	389427	347978	554238	1797719	2981987	2575002	1531259	526605	627268	678290	569337	364558	13123668
1914	399789	434923	903103	1550892	4430741	5850876	2629667	1078276	645032	974850	557988	368012	19832149
1915	339194	429199	554534	1461190	2306954	3247460	1622853	497492	456240	545948	443410	377486	12281160
1916	425547	455549	1408884	1776007	3519842	4213626	2077996	1614157	693685	1412832	526605	402948	18527678
1917	297548	386960	537954	1549023	3670836	7219692	4274442	1152293	680560	499367	480714	437193	21139582
1918	386861	408474	686481	905077	2507293	4704110	1732584	582759	603977	571114	528579	443410	14060719
1919	718454	349359	682139	1379278	2932642	2011874	976923	571903	420613	394855	439462	426732	11304434
1920	439956	631709	713620	996364	5645603	6402547	2410578	950671	501637	548711	627761	437883	20307040
1921	444397	488610	969817	926295	3927427	7888803	2222082	1653633	777768	462852	450713	483280	20695677
1922	385427	472409	934300	1183841	4430818	5099029	1460416	735868	456064	319700	423600	437900	16339372
1923	400721	369383	499164	1306135	3568178	4643175	2326275	1440061	1310895	752619	766424	593548	17977028
1924	369361	529198	532121	1663760	2994490	3153765	1408994	334682	275568	378093	407074	300310	11987416
1925	269873	426199	661616	1309705	2102292	2396266	1487407	802425	1195455	1046534	620637	460364	12787773
1926	371514	362441	654238	1650669	3378793	3479257	1428378	580144	387318	468481	371787	415724	13548744
1927	361368	462965	677603	1284118	3871931	3660748	2527177	993039	2166577	964755	778920	486374	18235575
1928	498241	501242	780289	986593	4270776	3766071	1553200	667150	374762	614762	589457	365857	14968000
1929	349624	361219	950612	1769679	3901445	4752292	2115819	1994687	1695297	946308	583447	459872	19853301
1930	317650	480681	612425	1670305	1998991	3076409	1153369	1592552	530428	565879	445871	312792	12759352
1931	280019	385378	518779	575235	1165207	1410864	503898	324598	299072	534827	390115	273316	6594408
1932	306643	731088	847926	1723860	3969083	3619689	2066628	961065	540662	354481	395768	298957	15815860
1933	283523	276680	529293	520609	1390255	3973149	1180579	386578	418618	432264	309426	339601	10640585
1934	329271	316900	348947	452417	1102489	545601	146343	165957	166435	171922	195831	243249	4185362
1935	288074	306181	378216	731316	1361355	3992190	1513847	580144	454142	385533	335370	289857	10616225
1936	278666	331726	530837	1312680	3583550	2707478	1045305	924172	624207	362536	458546	338187	12470890
1937	217608	531110	821486	1565577	3471026	2401622	1366889	422856	452536	486128	396958	407423	12541219
1938	338125	358165	901421	1533094	3287790	4679473	1753652	543189	937799	592811	498949	432141	15862909
1939	360753	317677	818412	1210927	2407890	1672091	467989	244171	594931	353805	331800	309472	9089918
1940	282109	324996	467620	692638	1987308	1518568	432879	254931	479015	756923	430221	480038	8035246
1941	433678	514615	838088	1209142	4976264	4099895	1753037	860839	658720	1903684	952675	594532	18795169
1942	429497	435140	653008	2763412	3162968	4241516	1344753	486005	293457	356203	385830	373112	14925101
1943	347349	350945	579468	1417409	2160706	2675940	1459122	833169	494189	408468	476576	419721	11623062
1944	297666	362788	550814	1099057	3206010	4143928	1853878	455568	250992	361491	401123	344705	13328020
1945	356141	380602	471494	804506	2802646	2753891	1731516	1070515	393507	524497	465389	358847	12113553
1946	383811	332617	514228	1015750	1774558	1995203	784593	567231	372382	418798	492344	467989	9119504
1947	303138	371160	653423	785466	3087952	3233502	1952260	1328766	640274	894043	608141	490494	14348819
1948	427407	458274	668995	1732191	3392321	3357867	1009026	586969	242364	336219	434446	364688	13010767
1949	363151	374271	795661	1336482	2958827	4302807	2127502	632102	340309	520685	487703	380983	14620483
1950	358171	414147	669610	1191885	1940577	2925266	1401323	443824	343106	359154	355185	434355	10836603
1951	326381	366273	428882	535426	1551970	2800305	1397019	832554	451762	424886	465627	353313	9934398
1952	592626	396323	434724	2209421	5062348	5203117	1590093	833169	595645	392850	398482	399860	18106658
1953	407484	377436	477581	533284	988735	2932406	980127	703428	290384	325090	428376	359462	8803793
1954	332899	352777	423471	565833	1211323	797367	667765	349193	415166	526219	359589	295821	6297423
1955	261019	268693	585862	621232	1515692	1595329	617959	667765	264559	236485	297585	353406	7285616
1956	398445	310271	511338	877699	2125657	2583707	597791	383073	184823	202236	325016	274300	8747456
1957	342675	370494	541160	811648	2501352	5541106	4033031	1671872	884244	783343	891980	536918	18909843
1958	414740	535831	748930	1579858	3900216	3763691	683137	336711	379225	345986	384878	387562	13460775
1959	334006	325675	364688	423081	1010871	1804192	795661	487542	270748	528494	569284	394141	7308383
1960	347656	353412	820257	1650074	1580254	2211801	678218	232550	218502	382151	379820	300664	9154759
1961	291210	352833	378708	587255	1147375	1692322	416892	374280	747978	771681	569998	409206	7739738
1962	368562	831959	610212	2467077	3716345	2850290	1821289	511707	318292	557147	442955	344090	14839945
1963	181760	373937	203035	71525	78705	107912	107912	112032	121688	77291	75928	77476	1629099
1964	78644	245099	382458	795582	356080	76702	84116	286536	190595	298527	370716	412711	3577766
1965	607506	539330	567908	1251390	2281838	2282017	724335	879286	767019	675144	612206	588322	11776401
1966	528617	523779	718186	864608	1011486	791417	697804	693590	623612	566555	589457	619804	8229005
1967	648704	563711	704043	800937	861454	711085	692975	785327	712870	459012	495141	597115	8032870
1968	658542	533454	900192	1077636	975822	925303	864528	753770	674787	646859	675382	646891	9372566
1969	627798	508950	726794	927088	798736	869963	993654	1002263	841996	662231	750953	831939	9542365
1970	767991	493733	509801	968741	946308	821169	814723	797506	756309	541591	482645	699739	8600256
1971	543804	429920	644399	1000279	933395	896145	932781	932166	820574	675759	786061	994269	9589552
1972	840548	471331	363643	793797	911874	890195	871292	996729	944939	916794	730126	1069285	9800553
1973	1231000	839179	1204560	1916061	845467	771185	670840	585801	449441	515766	444978	354297	9828575
1974	876826	326452	433740	506626	815952	932443	1234689	1228540	828310	608982	740242	583173	9114975
1975	803655	565377	548370	504364	913719	994949	1245757	1028703	991948	648704	441349	523698	9210668
1976	718186	767337	712037	693828	1079923	759879	806729	722490	862227	819627	902691	828865	9672419
1977	1017633	487013	491785	189166	220129	472053	887894	1245142	975882	418860	387199	803655	7596413
1978	930321	591480	694205	481336	580513	765829	697280	1092036	1014560	707118	721796	1054528	9331002

Colorado River Near Grand Canyon – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	1056987	830848	318019	500080	601972	631943	857765	1079123	709300	618574	813433	678833	8696877
1980	599759	836363	670840	964576	887894	1463228	1561808	1323847	1019916	764917	924708	748315	11766171
1981	716956	615916	477274	481514	543066	520014	842392	906340	682522	662231	595645	876826	7920696
1982	920483	735323	586846	658720	643170	646819	825791	964755	671216	752004	941369	988735	9335231
1983	906803	889923	757606	983900	1312065	3325486	3415335	1828164	1576660	1617916	1442974	1487999	19545031
1984	1471338	1410247	1505850	1524892	2513652	2521189	2176858	1614148	1470346	1378571	1479471	1529652	20596214
1985	1591000	1512000	1346000	1251000	2080000	2387000	1739000	1609000	1407000	751900	744200	708000	17126100
1986	1041000	1207000	1587000	1784000	2754000	2104000	1320000	1580000	1658000	1162000	1250000	1549000	18996000
1987	1615000	1153000	839900	829800	786600	1019000	1130000	1348000	997500	562100	786500	834700	11902100
1988	859900	827600	731200	623500	582800	544500	731000	803400	718900	539400	625300	649900	8237400
1989	743500	674200	616700	573000	541800	750000	835200	906600	819600	572200	591200	660700	8284700
1990	689700	586100	656300	577700	627400	759700	779000	976200	754500	463600	500000	579400	7949600

Paria River at Lees Ferry – Flow in Acre–Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	1230	1777	6641	2083	676	60	3259	6395	3451	0	2559	1722	29853
1906	1230	1777	6641	2083	676	60	3259	6395	3451	0	2559	1722	29853
1907	2091	1388	1291	1488	799	476	1168	6149	0	4427	595	1045	20917
1908	1107	1444	861	536	676	179	2029	3074	3630	2214	595	1045	17390
1909	1045	1444	922	476	369	60	1599	8793	7379	0	2440	1906	26433
1910	1722	1388	2152	655	369	714	1722	3320	10830	3259	2083	1045	29259
1911	1845	2166	1414	476	369	655	2275	2705	7498	1230	952	1045	22630
1912	1107	1500	2828	1488	369	179	2275	3074	0	6333	595	1045	20793
1913	1045	2444	1291	476	369	357	1906	3197	4760	184	1785	1414	19228
1914	1722	2110	1353	1250	799	655	4981	2337	0	1230	595	1230	18262
1915	1783	3832	799	1726	799	119	1230	3013	1845	0	1547	1476	18169
1916	2460	1555	1537	774	430	60	2705	3628	3392	1230	1250	1230	20251
1917	1353	2666	1845	1071	553	298	1230	2521	0	0	595	984	13116
1918	1107	1388	2583	774	369	119	1660	1291	0	1414	833	984	12522
1919	1168	1944	1845	1071	553	298	2091	3628	3392	1230	1250	1230	19700
1920	1353	1944	1845	655	615	298	2091	3628	3392	1230	1250	1230	18814
1921	1660	1666	1906	1071	553	298	2091	3628	3392	1230	1250	1230	19975
1922	1353	1944	1845	1071	553	298	2091	3628	0	1045	1131	1230	16189
1923	1230	1666	1230	1666	492	60	1845	4181	1726	446	2083	1260	17885
1924	922	1706	1529	1341	321	208	2160	365	6016	1166	1279	815	17828
1925	567	1571	1319	659	192	210	2420	7644	11679	17703	1289	936	46189
1926	1154	1250	908	3420	655	117	776	1283	2579	952	2118	1115	16327
1927	1297	3019	3326	383	125	1063	2880	4439	25216	887	1430	1133	45198
1928	1146	1745	2507	399	538	125	1942	3852	353	811	1246	962	15626
1929	906	1347	1575	452	196	159	8097	10685	8378	795	702	732	34024
1930	918	1591	817	294	357	331	3094	7006	2392	1650	1821	541	20812
1931	494	1718	742	351	591	292	867	1053	1250	1271	1071	589	10289
1932	928	8499	3614	1119	526	224	4005	14571	1513	1230	996	861	38086
1933	664	1321	2418	613	474	157	3092	2440	2408	1337	1035	1793	17752
1934	1561	1172	847	343	3219	468	1010	5891	762	401	750	1462	17886
1935	1626	1900	2390	2549	750	190	887	1771	2448	528	1095	1146	17280
1936	1265	2448	1258	494	204	210	10592	9521	6514	1785	1567	1010	36868
1937	538	4195	6393	2803	474	321	2491	2656	2741	1220	1091	1279	26202
1938	1525	1400	10731	1168	666	1085	462	1496	3586	1103	1095	1248	25565
1939	1327	998	2196	720	214	163	143	1047	23479	1010	1018	1085	33400
1940	2378	2430	819	335	246	184	208	2428	14309	2063	1347	1511	28258
1941	2128	4165	4177	5074	2343	518	2539	906	904	5812	1851	1428	31845
1942	1519	1341	2104	1472	442	177	970	1958	595	1386	1168	1406	14538
1943	1864	2095	1892	819	228	161	309	5254	2132	4754	934	1382	21824
1944	994	1749	4907	1827	1079	476	204	354	302	434	960	1004	14290
1945	1265	1553	2218	1167	283	177	724	4228	2359	5042	1077	940	21033
1946	973	1295	1337	962	244	170	2119	7980	716	3334	1821	1470	22421
1947	930	1246	890	376	430	246	312	11635	546	2678	1131	2259	22679
1948	1411	3237	1513	1031	338	751	440	3935	387	871	1214	1113	16241
1949	912	2099	3320	2116	460	3309	418	1416	2338	1155	970	1211	19724
1950	1775	2110	1174	366	250	224	2622	691	945	375	989	1281	12802
1951	1294	1079	1000	762	1024	234	296	4888	690	482	878	2606	15233
1952	2101	1674	3007	2741	461	495	1038	2001	1373	570	652	1375	17488
1953	1567	1022	994	521	347	249	3405	6715	470	572	1329	930	18121
1954	1594	1260	1715	644	457	527	1997	359	4299	3486	772	1357	18467
1955	1142	1656	2271	450	276	311	834	4817	287	368	959	1496	14867
1956	1452	993	651	410	349	242	1157	1576	277	664	749	660	9180
1957	1809	2166	890	682	993	412	3427	3701	437	5632	7319	1162	28630
1958	805	2799	4224	2255	1088	278	713	3191	9699	695	934	910	27591
1959	1021	1061	836	322	288	228	468	6456	661	595	1077	1150	14163
1960	990	1749	2214	461	392	827	232	288	558	4390	1315	892	14308
1961	621	861	1205	708	261	213	898	11068	8569	430	845	842	26521
1962	1039	4432	1427	851	258	370	257	341	4017	1506	702	867	16067
1963	799	1300	701	390	254	202	208	7379	5671	1254	1184	781	20123
1964	726	984	1082	1083	769	241	1420	3363	458	452	922	1672	13172
1965	1199	1005	978	3160	984	408	916	1937	1845	978	3320	2921	19651
1966	1476	1561	1802	584	288	207	787	904	1214	738	857	4267	14685
1967	1322	1494	928	511	627	452	1937	2921	10235	495	785	1224	22931
1968	1629	3601	1888	1000	738	176	5110	6825	249	547	732	842	23337
1969	5946	2732	3972	2553	836	219	3474	3167	1660	972	1470	1396	28397
1970	1611	1238	1716	478	244	455	978	3911	1065	432	1142	1359	14629
1971	1525	1150	1393	345	416	198	1002	6518	655	2546	1232	2773	19533
1972	1058	1053	545	311	267	3469	444	2921	2725	10638	1868	1439	26738
1973	928	3193	5651	3219	1211	519	260	1814	661	460	952	1340	20208
1974	1334	1405	1427	515	270	212	1174	972	661	2324	2231	1070	13595
1975	1058	1599	2177	1321	465	262	2662	1205	2249	446	994	1359	15797
1976	1156	2945	1537	1547	627	205	433	277	371	518	791	652	11059
1977	910	972	558	389	469	351	830	1340	507	769	857	1107	9059
1978	1697	2038	5079	1934	414	196	309	336	301	738	6486	818	26346

Paria River at Lees Ferry – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	824	2838	13282	5552	2410	655	392	1574	266	627	1529	1476	31425
1980	3099	13890	5423	3898	2281	565	683	1433	12377	1353	1392	1617	48011
1981	1482	1222	1814	1107	861	690	2724	4169	2660	3025	1458	1470	22682
1982	1290	1890	1810	1370	754	227	414	3720	1380	1130	1410	2570	17965
1983	2130	2910	4820	2400	1450	677	2140	3290	1920	1900	1810	1670	27117
1984	1530	1300	1140	814	274	209	2750	3400	1420	1850	1250	1330	17267
1985	1650	1790	1970	1410	483	321	1390	766	1100	2320	1480	1520	16200
1986	1340	1630	1590	1020	270	250	1280	2260	3490	2070	1540	1370	18110
1987	1190	1610	1540	764	1110	249	506	3790	656	1620	3450	902	17387
1988	972	1310	932	1840	601	324	311	2340	958	781	1260	1140	12769
1989	1190	2430	1520	382	336	230	1150	1970	274	480	712	935	11609
1990	956	1220	887	442	335	541	2080	622	1480	1020	675	632	10890

Little Colorado River at Cameron, AZ – Flow in Acre–Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1906	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1907	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1908	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1909	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1910	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1911	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1912	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1913	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1914	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1915	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1916	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1917	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1918	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1919	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1920	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1921	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1922	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1923	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1924	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1925	8731	17204	36190	42285	9494	1449	9306	28367	18512	12386	4199	5465	193589
1926	746	226	20304	92035	11662	0	462	5792	52425	2312	934	805	184326
1927	3006	66789	82152	55259	6362	40389	22433	22632	126510	412	0	0	425944
1928	215	18637	55211	8068	0	0	2439	5478	3194	0	7734	704	101680
1929	302	1271	46290	170493	2371	0	106240	121055	102368	13007	251	220	563868
1930	426	1271	24246	29452	805	0	55301	74123	5904	0	807	4584	196919
1931	954	13429	31979	14982	13377	0	25264	56180	17158	15210	18475	7472	214480
1932	10069	168807	161162	85182	10052	0	3372	26298	3100	1799	0	0	469841
1933	0	7818	27489	19558	11365	0	19811	21275	30124	33940	837	1058	173275
1934	488	561	1562	1353	0	1353	1974	22688	9013	0	0	0	38992
1935	20696	29889	41507	79556	2808	0	501	35830	23686	1597	0	615	236685
1936	399	4149	24652	53880	532	0	3922	49896	38876	74	5118	0	181498
1937	0	127040	121734	97710	2494	0	6329	2762	7263	6615	0	297	372244
1938	0	1082	140668	4592	0	0	0	12046	19453	0	0	0	177841
1939	120	1477	37377	43837	0	0	0	2769	4217	0	0	0	89797
1940	604	5586	14526	7046	0	0	13160	45958	56298	23520	9165	31351	207214
1941	62068	82098	150652	118104	94715	4067	3907	29160	33816	58918	3082	2969	642956
1942	7099	6802	20651	55371	6285	0	0	113	0	438	362	0	97121
1943	26	7110	58137	13763	0	0	0	18109	12993	487	0	0	110625
1944	0	94	24685	78658	26848	0	0	0	9076	2127	829	934	143251
1945	264	5098	18200	73713	21251	0	10291	39087	438	0	0	180	168522
1946	4466	2465	4080	3192	0	0	10278	56906	44119	432	15705	5125	146768
1947	3594	8967	6990	602	169	0	0	104263	20168	75391	710	1019	221873
1948	3305	6462	19069	67366	857	879	5242	20187	602	4443	2176	2071	132659
1949	18337	13641	97144	77888	6011	1686	11758	41373	10745	6488	252	30	285353
1950	188	11308	14555	3870	0	0	7690	998	1676	0	22	94	40401
1951	152	14	0	454	1312	0	3971	26269	17915	9048	103	147	59385
1952	124748	10198	12913	131843	21071	165	1913	12556	27821	114	488	3919	347744
1953	1642	1422	15307	5735	0	0	14894	15054	227	0	130	27	54438
1954	135	26	17556	20200	120	270	37863	6287	25946	4158	68	63	112692
1955	113	176	473	22	0	35381	12318	139200	3598	0	0	69	191350
1956	121	2034	5173	1234	37	0	1980	8694	0	0	0	0	19273
1957	39172	40876	25756	1926	57	263	4168	53473	9266	12827	12423	1264	201471
1958	307	4904	31256	44538	1619	165	444	23089	34417	10813	63	29	151644
1959	128	80	1890	2394	0	49	96	35588	264	6581	34715	19007	100792
1960	18197	8216	88476	18557	24	13	0	0	382	9146	80	124	143215
1961	73	13	2275	11618	0	0	706	9457	5268	510	3711	5.8	33637
1962	93	46295	14009	85642	1197	0	0	167	4131	4498	3114	159	161305
1963	14	2129	1308	1753	0	0	0	41356	29933	1852	680	0	79025
1964	0	0	0	27190	3080	60	9945	101898	26202	549	0	0	168924
1965	42141	12214	14969	87552	16572	0	20817	10111	20969	416	3916	24494	254171
1966	55818	4334	66876	16951	77	0	976	17508	11113	4528	43	23018	201242
1967	50	48	0	1284	0	2603	22763	87292	48877	450	0	117	163404
1968	3941	40261	49084	67112	12310	0	6574	33950	1	5158	179	0	218570
1969	26602	7621	17882	37714	1101	0	12940	7879	22773	5653	1130	48	141343
1970	63	0	5278	4628	0	0	729	13587	49523	679	8.3	67	74562
1971	46	5	0	0	0	0	130	60541	16173	75450	6062	28209	186616
1972	6905	322	0	0	0	182	8777	5196	1476	257770	12101	6401	299130
1973	12298	24762	86967	236219	177200	1860	39	205	46	0	0	0	539596
1974	656	62	8060	3999	0	0	6644	6042	2801	11020	11850	0	51134
1975	12	53	14160	32780	6190	0	9860	979	25530	177	0	892	90633
1976	142	12490	17820	35500	9730	0	19120	4020	7670	509	77	0	107078
1977	3330	560	29	5000	3	0	16440	36160	7470	6020	605	168	75785
1978	603	5260	115200	47070	2280	202	0	243	1214	7317	35941	103854	319184

Little Colorado River at Cameron, AZ – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	15434	45375	78582	158700	21951	1630	0	3984	0	267	1868	389	328180
1980	8239	121300	45747	104253	36832	95	14	4673	9699	0	0	8.3	330860
1981	65	73	47	1821	76	6.7	20845	5159	13091	26010	33	1328	68555
1982	3290	21820	71120	32310	3150	0	200	42490	25840	395	3220	27350	231185
1983	8850	17110	83140	93590	41700	13	9460	21370	17080	42350	2510	14080	351253
1984	9610	513	4050	1450	0	0	17500	75600	44830	23410	207	18980	196150
1985	27260	22510	94980	49250	19860	0	2010	6390	9820	3000	10890	6700	252670
1986	172	9530	20330	10050	0	0	15570	8170	12420	13760	11180	9300	110482
1987	8700	13510	31850	38010	7920	565	1100	25840	223	901	44810	15	173444
1988	2130	32400	18580	29250	4190	868	1920	30520	15540	0	64	30	135492
1989	142	452	10570	3220	0	0	2460	19540	4	153	0	0	36541
1990	21	515	14	135	1.7	0	7640	8720	18930	1780	1550	4210	43517

Flow Gains from Lees Ferry to Grand Canyon

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1906	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1907	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1908	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1909	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1910	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1911	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1912	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1913	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1914	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1915	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1916	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1917	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1918	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1919	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1920	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1921	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1922	17398	14214	5567	-13494	-21650	4252	22379	15939	23389	17485	19289	23511	128279
1923	18140	12009	14969	-13008	-50568	81203	-8691	59070	412363	12993	114513	165627	818620
1924	50544	5939	-11033	-14468	-70074	25715	41414	7854	11175	8277	11838	21451	88632
1925	1954	7051	22258	-26878	-31822	9052	39330	37160	101910	22558	8435	12572	203560
1926	11628	10742	-6454	-22264	10434	46892	44879	38181	37645	37687	36995	36818	283183
1927	22691	7390	-8987	15764	2736	-23600	96434	40566	-19030	28216	43793	45352	251325
1928	30121	21033	-28204	-5492	-70020	62950	22060	35556	26562	8720	13573	22745	139604
1929	19883	15820	-16506	-75142	-171046	-79806	-3658	-27824	-54217	10793	23861	23212	-334720
1930	21530	-3529	18409	-64259	21589	8595	36297	49441	1820	16305	20579	20577	147754
1931	16384	5568	-7388	-4146	-4130	26486	30438	21657	12772	19182	19728	15243	151794
1932	24789	-1290	11696	576	-16727	2156	47962	-5821	50726	17139	17391	26932	175529
1933	12802	14964	2006	5178	-56726	438	44734	25660	12871	22952	11100	20084	116063
1934	21071	14262	13578	-2707	2930	33763	12819	10220	23785	19583	16149	14464	179917
1935	12173	1923	-3130	-2964	-43526	-11406	41039	22166	3202	36736	15626	23634	95383
1936	16660	10544	20268	-66275	-8114	58700	27914	227	37619	14005	10334	22848	144730
1937	19815	-10495	-4535	-47553	-7272	49068	39141	17209	39088	25861	19438	23327	163092
1938	19196	9515	-34571	-77166	-68918	12006	31512	28024	15044	29273	29074	30357	23346
1939	19152	22017	-21126	12568	-82608	6978	49601	20226	19729	29488	23379	28491	127895
1940	24011	22010	20995	4520	-35295	30759	27768	27921	5619	46358	18467	17436	210569
1941	21211	5430	15479	-5358	-95214	91219	80253	33267	15859	41645	45051	14418	263260
1942	14133	30678	-4	-137770	-52844	39691	26699	30149	17792	20128	15905	14519	19076
1943	15942	9401	3120	-46715	2232	-53715	29820	17219	31705	25749	19239	23398	77395
1944	18191	17024	12159	-7889	-72199	7854	71737	37953	12877	17361	15824	22596	153488
1945	29461	22451	14139	-25490	-23993	-6723	52318	15714	20470	14204	21059	21262	154872
1946	12454	9736	13214	-1774	42183	2211	42328	23903	17883	12405	8180	16832	199555
1947	21382	4282	-8495	4377	-33803	-41899	25513	9538	35459	-2438	21009	21502	56407
1948	16498	-9239	3399	-38644	-115563	16816	23832	31463	11388	343	23447	14770	-21490
1949	6638	-2299	-11306	-50847	-146050	-121624	-21399	13473	13754	4040	13654	11733	-290233
1950	6400	2077	3948	-29228	-30379	-53778	13669	20447	10470	17210	4344	17871	-16949
1951	9683	4627	10232	3128	-95798	-86517	36316	14344	22453	3260	19608	17108	-41536
1952	-10267	5217	-20962	-191708	-39979	10051	14266	-2259	24539	23665	8857	16104	-162476
1953	10503	9663	3621	-1912	-59376	-59754	11831	20658	31733	3855	13000	17613	1435
1954	12660	9655	11411	-1326	-65755	4558	-19569	21516	-3885	6314	9931	15920	1430
1955	15716	23605	3343	3098	-54385	-26766	34194	14131	30985	22444	20999	25429	112793
1956	23944	26769	-5209	-21875	-64949	-10358	37937	17031	18468	15016	24064	26764	87602
1957	17187	4054	15965	-18675	-68688	-104213	10237	10463	52182	17204	24292	17927	-22065
1958	16597	-7758	17400	-40842	-94324	85244	54182	24202	15686	23971	26732	20397	141487
1959	18282	9245	18118	617	-13815	-31814	12963	20489	23889	19264	34067	22208	133513
1960	23486	24950	-15674	21446	15571	-28212	31127	24369	24468	27969	32596	24379	206877
1961	24824	21286	13307	7787	-5795	103921	46480	17105	23651	45792	38525	28236	365119
1962	18790	-9629	-3323	-10327	82169	-25957	103658	42103	-6816	11704	11060	10411	223843
1963	12038	1680	13240	8863	16348	7176	18054	1501	26222	12696	14539	13977	146356
1964	7022	13569	-6924	-3281	33352	16836	12677	6894	7437	29006	22285	13454	152327
1965	5912	11496	-4202	-61555	-19401	-42061	-24807	-3439	-6153	14593	15732	29831	-84054
1966	20182	34703	27859	21739	33454	37282	38819	-6729	-11137	9430	4991	63902	274495
1967	33000	27782	13214	11376	-17844	10036	26950	3249	57518	43327	34620	43607	286835
1968	19640	25624	-8545	41378	20155	30767	25824	49613	39619	15816	40743	26213	326847
1969	25621	37854	-3408	16263	33727	-5575	21709	61511	23766	25964	42029	15772	295233
1970	59814	47469	16679	21671	46487	20372	44430	7098	4752	42362	32589	28088	371791
1971	50755	12674	3111	-11056	7577	1587	-10970	-11104	27801	13438	14723	26202	124738
1972	27086	25487	-14380	10995	9571	23722	-52878	-16725	10080	16899	44941	44425	129223
1973	10753	47576	16832	-823	18967	17853	14459	17165	24463	5443	31597	19874	224161
1974	28754	25746	35769	7566	12027	18234	175	8973	-1676	-6826	15671	16946	161359
1975	34594	7790	24245	11420	14866	7474	12688	5195	-2192	11060	15370	1316	143826
1976	25142	9875	16921	-3129	22847	3365	21029	-1837	12190	26028	4488	17795	154714
1977	19126	14463	32801	20079	14101	5897	23312	30137	-9167	32933	-4259	-20951	158472
1978	-19517	-17295	-5296	-59953	-69655	7337	-4613	26476	44304	14696	8153	60732	-14631

Flow Gains from Lees Ferry to Grand Canyon

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	22479	36204	21767	-5612	60247	15566	-2236	9814	22941	-279	7909	39332	228132
1980	-15704	85693	13947	-6397	3314	-9586	-24063	39395	16603	-13651	-12698	-18842	58011
1981	-29832	-25732	12774	5938	-10776	-7659	-26644	-6254	-280	24521	9398	35940	-18606
1982	23705	34605	5222	11543	23151	12269	28286	1751	26929	-42108	-37953	-17622	69778
1983	-17803	9394	9150	-63342	10205	11013	34416	-29817	-31099	-2399	22853	31060	-16369
1984	21984	25162	26148	29075	-35381	-19250	-50399	-28421	6907	17226	4097	11425	8573
1985	17090	2700	4050	-23660	-56343	-6321	-15400	-32156	3080	26880	23530	26680	-29870
1986	42388	44840	40080	39930	-3270	18750	-26850	15570	28090	-6830	-16720	330	176308
1987	-9890	1880	-32090	-7874	15570	30686	38394	36370	23521	41179	20740	38183	196669
1988	34598	11190	20688	29710	22209	16608	16669	-460	14302	27419	25676	22030	240639
1989	10468	23218	17210	28698	13864	12470	20990	18990	24522	15467	1188	12965	200050
1990	-1177	-8735	15099	-8477	-2237	8059	-22220	-7142	21290	7500	7475	-7342	2093

APPENDIX 2B
SALT MODEL STATIONS
LEES FERRY TO GRAND CANYON

Colorado River at Lees Ferry – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	445536	461448	696728	910656	1449216	1321920	797640	800496	965328	788256	618800	479808	9735832
1906	515736	544968	858690	1084194	1776888	1597320	960480	958392	1194336	950040	724710	565152	11730906
1907	584220	621180	1006740	1249920	2097900	1927800	1110900	1111320	1416870	1102500	823200	646800	13699350
1908	401154	405594	594738	794871	1232100	1108890	689310	695304	809523	680652	547785	425796	8385717
1909	589784	627096	1016328	1261824	2117880	1946160	1121480	1121904	1430364	1104096	831040	647024	13814980
1910	425750	435000	652125	860250	1359750	1215000	747900	756000	897000	740250	586250	455000	9129875
1911	497640	529480	1090800	900000	1345500	1409800	1003200	635060	548510	1322100	601120	490670	10393880
1912	474020	438180	640220	748440	1548800	2066400	1246600	978500	698280	821040	676910	445510	10782900
1913	480080	422960	624000	1210400	1370800	1106000	800300	580560	766260	845867	679831	468754	9349812
1914	487090	498875	960850	1076600	1912640	2060450	1206580	987940	789480	1144902	670464	473759	12269630
1915	438045	495358	624360	1021690	1102080	1267110	833040	559625	580566	711124	570780	480669	8684647
1916	510376	516600	1441440	1195440	1551000	1564360	10113600	1386780	839851	1584600	639600	502379	12743786
1917	402845	459155	609235	1069600	1618320	2545900	1824060	1047180	822960	668736	601425	533862	12203278
1918	476544	476544	752100	735420	1174530	1701000	874140	625746	741520	741198	642200	542241	9483183
1919	748394	424864	747040	989880	1347800	858710	587946	618585	542286	562845	569217	523672	8521239
1920	521418	670320	776910	784080	2328390	2256100	1128470	894049	630045	715016	725290	534793	11964881
1921	523136	544200	1025799	744510	1693340	2703680	1060800	1421580	933125	628301	576999	578085	12433555
1922	474568	533242	986571	880055	1912674	1845060	762254	739245	580320	493973	566215	531362	10305540
1923	495585	446825	554001	943642	1587854	1687371	1092405	1213599	1071519	923028	768299	551767	11335894
1924	442105	474958	611576	1127875	1374637	1219293	6071360	441182	388581	559334	557354	419772	8324297
1925	403449	500466	704163	957293	1040970	978078	761277	758424	1276025	1199764	740480	573405	9893793
1926	483281	458792	735402	1104235	1510219	1304254	746421	615121	447897	632744	507562	512701	9058630
1927	464780	486066	703301	909534	1699592	1384300	1130552	897640	2318624	1131640	843752	567457	12537238
1928	569446	537998	804868	597571	1866139	1407138	793915	876268	499747	804957	702961	481439	9979606
1929	459946	452471	1001986	1154974	1750067	1729810	982519	1607155	1884583	1115273	698291	566420	13403497
1930	430373	567991	671365	1159276	988120	1196318	625799	1300808	686812	750456	583276	433506	9394300
1931	406390	470415	537448	575329	681668	664361	398123	402961	417912	703821	522753	400019	6181200
1932	411703	616141	765458	1129518	1708350	1374577	985532	898236	650333	538244	547202	420304	10046598
1933	410487	373829	601830	539833	789328	1469845	645506	468712	529965	579754	480255	459166	7348511
1934	440857	415249	449496	516908	668767	387613	280661	315352	272394	358574	381125	381903	4868899
1935	398119	392355	452182	619566	770728	1481294	779853	603637	586232	551208	497092	412561	7544827
1936	403530	418398	567497	966944	1580008	1059427	601726	855883	708969	551208	600477	458920	8772989
1937	353086	508859	795599	1058832	1529145	964416	725410	516295	564822	656026	545822	516402	8734715
1938	450714	453480	878744	1111452	1510219	1679898	878056	591915	1097654	764912	623477	532713	10573233
1939	469413	410459	887961	876890	1170433	749228	388968	383024	717233	526990	488771	428241	7497610
1940	400532	401159	539100	633085	1011179	699184	376073	351889	563905	883627	565751	497259	6922743
1941	473649	528653	715167	829405	2089256	1521555	849832	837381	760176	1797309	839503	667832	11909717
1942	540972	507288	630257	1052405	1123180	1218478	816592	562693	465206	488006	559966	535781	8508020
1943	481095	461951	604803	884221	928046	1091798	700207	848068	483148	562442	584190	531710	8162434
1944	423291	464293	626147	862227	1462627	1282035	819691	446469	359117	515769	536914	467450	8266032
1945	471469	478040	559279	732464	1178144	1048066	817410	940682	481312	747771	602824	548438	8606800
1946	570832	507402	644276	820830	1073921	1096052	751764	631543	520256	511336	541300	537920	8207413
1947	426968	460098	628068	686498	1342097	1375565	1078804	854364	601624	875701	620408	563154	9513709
1948	487432	540221	735316	1106585	1332542	1135403	626888	627033	344981	522288	586957	499297	8544941
1949	468797	451038	833674	980494	1332315	1811969	1089730	558565	467073	753323	619403	504172	9870552
1950	496727	490342	712426	900489	945939	1102163	922819	417471	478522	481612	531742	547944	8037196
1951	457115	457902	505332	536393	937896	1183501	651089	857888	525701	593418	618603	463154	7801676
1952	590295	485426	580491	1677243	2032318	1869266	880811	853706	688228	523271	587457	560124	11328636
1953	543405	478581	567497	576545	733435	1107007	607998	753541	397249	554747	616736	507929	7444671
1954	477765	451224	494914	535389	714841	483127	563302	372396	606537	701798	481369	423291	6305952
1955	395358	342991	742112	648454	863391	761473	388017	677791	344534	354697	449272	463492	6434992
1956	484806	395470	587331	673448	1029403	985653	411971	462504	242474	317145	465315	382658	6438177
1957	418225	436587	613215	736666	1387255	2144965	1726336	1267346	945713	1099119	1119289	650872	12545787
1958	520111	643063	772616	1038779	1796325	1434422	464571	412170	533436	487512	575010	553001	9231014
1959	475008	435099	474505	482710	706835	844435	492744	586512	398413	682793	594316	467862	6641233
1960	436126	429971	901742	997958	782134	940453	426927	276498	345638	562066	507778	395523	7002812
1961	414480	466249	499451	578485	703274	762330	387248	542007	1037315	746687	574340	471351	7183228
1962	442773	830404	687814	1769274	1780043	1581732	1064772	459714	481889	776792	539380	449082	10863668
1963	260120	490541	253511	85329	79492	154475	86064	58088	52679	52881	53940	170812	719815
1964	90038	306626	489258	947826	389032	74456	75093	212745	100159	166482	284957	385657	3522330
1965	530341	504323	539478	1210011	2123825	1928646	334608	339564	300143	276846	271095	318646	8677526
1966	324822	362386	466237	627254	694144	505132	427253	429601	398350	353190	379318	364746	5332431
1967	466892	427510	607113	795724	808377	628195	519473	491576	435255	302760	353997	452777	6286550
1968	595332	454689	866543	1016553	961471	903304	678156	472638	444443	425230	430955	490980	7740073
1969	512666	428491	680014	853147	724918	787787	793091	669388	539782	453342	515617	594748	7552991
1970	572267	378272	447238	857187	800624	656280	614885	602870	525727	368607	345658	522776	6692390
1971	358779	341195	556863	869451	768064	679714	716390	639634	512124	403184	527190	446589	7019216
1972	579959	320018	305757	657292	712608	655745	667913	733896	651461	442041	476563	772035	6976189
1973	856983	549827	876098	1375506	531433	593253	524866	430629	322446	372200	301073	223166	8957469
1974	566875	197498	289133	395637	618814	676358	883221	860913	578567	415706	483133	372344	6348192
1975	528914	389153	388691	3485721	695914	730519	890999	725134	686316	439644	301739	368093	6482545
1976	477305	356520	533850	521329	805358	559669	551626	511321	597817	546461	628335	367293	6856582
1977	705931	357974	366718	129321	164445	363328	643957	930229	742575	284354	292497	625732	5607059
1978	739080	469152	463378	408597	550353	636799	582315	883934	804055	554337	523548	666843	7282390

Colorado River at Lees Ferry – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	743323	559823	163510	300467	439759	503555	687687	819088	535153	475828	609617	459098	6296909
1980	434970	455455	490636	698886	667919	1045229	1077918	869275	677054	528506	617769	497596	8061213
1981	499311	448247	346979	354486	420208	400502	625646	650352	466936	413899	415177	603423	5645165
1982	660227	514526	376434	484663	468247	501115	605637	687596	431947	594440	711525	693270	6729627
1983	630402	645382	508582	694414	906271	2319648	2257578	1246658	1016806	1040203	891955	821478	12979376
1984	834164	885294	987923	1090294	1682181	1600345	1390414	922506	864485	805000	843000	769000	12674606
1985	815000	843000	789000	792000	1243000	1365000	965000	894000	768000	392000	400000	366000	9632000
1986	546000	691000	1089000	1240000	1702000	1175000	739000	864000	892000	631000	675000	865000	11109000
1987	765000	655000	520000	518000	489000	609000	652000	757000	567000	307000	424000	474000	6737000
1988	465000	457000	493000	422000	428000	387000	519000	554000	486000	332000	362000	411000	5316000
1989	501000	415000	356000	378000	401000	557000	612000	612000	549000	364000	383000	420000	5548000
1990	495882	428421	433173	391109	468057	580738	593122	705016	498472	305756	317767	363089	5580584

Colorado River near Grand Canyon – Salt Load in Tons

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	535270	549849	748562	1010304	1575107	1546797	957338	857468	952822	818656	683617	559139	10794929
1906	600478	621710	860437	1184197	1887074	1858002	1105530	993629	1087633	968787	783071	630205	12580753
1907	662255	689789	966424	1348937	2182621	2152829	1245922	1122624	1183062	1111017	877291	697530	14240301
1908	492370	502572	674959	895902	1369866	1342057	859843	767888	845042	719886	618185	512385	9600955
1909	665686	693571	972312	1359089	2199040	2169208	1253722	1129791	1187442	1118918	882526	701271	14331576
1910	516394	529047	716176	959967	1484801	1456712	914440	818052	907265	775197	654827	538567	10271445
1911	583169	608327	1023968	1004957	1494327	1633937	1161251	717352	645290	1319582	667913	568864	11428937
1912	560040	530502	708147	846079	1677918	2291048	1379077	1006480	757086	852835	737962	528468	11875642
1913	565263	518865	696103	1303176	1490863	1323186	957478	674107	813156	874611	739733	550012	10506553
1914	573096	582943	932634	1178747	1999376	2338632	1348511	1019453	828126	1150708	730881	552631	13235738
1915	527287	578725	696304	1127843	1253927	1484712	969801	655882	656663	751401	641510	559812	9923867
1916	592570	598145	1275553	1291864	1679631	1801614	1152117	1354914	867889	1558470	706402	579112	13458301
1917	495802	547595	685063	1173605	1732649	2787604	1917319	1065787	857341	708004	670607	605070	13246476
1918	563323	563450	785764	838109	1324246	1962493	1029156	792959	793163	774830	707942	609783	10661512
1919	814158	519883	782820	1085168	1473543	1079440	760135	702463	621244	610733	638430	597141	9685158
1920	603463	727975	804164	885670	2425792	2519580	1270515	939572	700385	753973	785304	605593	13021986
1921	606820	622511	977866	849164	1822713	3007072	1203411	1379626	932333	647206	640004	640004	13362764
1922	558060	619187	1011890	989159	1984725	2103825	946350	823530	675212	540764	626058	605606	11484366
1923	573801	534640	658763	1047060	1696616	1942506	1240664	1245930	1214913	943811	893461	723587	12715752
1924	550093	638975	681108	1233383	1495252	1453980	785792	553963	467008	595128	613168	501313	9569163
1925	474880	576514	768906	1048920	1182090	1055520	941867	846770	1172192	1217446	779747	622634	10837486
1926	566709	560631	739762	1146560	1525920	1550795	1077783	697369	577214	629570	566891	595840	10235044
1927	559910	626095	752716	1027394	1663876	1599598	1348801	909436	1993251	896688	806658	640759	12825182
1928	648110	639255	807363	906552	1812851	1630552	1117629	746945	568876	717427	702809	562923	10861292
1929	551968	559810	890222	1179552	1673591	2039589	1263644	1235944	1159218	888242	699302	624141	12765243
1930	530126	637212	716087	1152173	1236956	1458124	978076	1129528	667774	688973	615250	526767	10337046
1931	503843	575900	619075	694488	981999	1071923	651595	534913	517226	670431	579063	499098	7899584
1932	522501	768136	841394	1167136	1696592	1588080	1252588	895007	673943	555271	582789	517145	11600582
1933	506316	501489	661818	646181	1064939	1698009	988075	576724	597719	606534	524433	545181	8938325
1934	538121	529608	551529	619417	956539	676906	405505	420431	420792	424935	442831	477576	6464190
1935	509520	522179	571176	781758	1054980	1704693	1105419	697369	620512	576033	542295	510773	9196707
1936	502887	531946	651558	1037764	1578181	1384062	932364	877968	722823	560695	623303	544217	9947768
1937	458911	668187	828272	1121404	1548704	1323832	1056902	600465	619492	640606	583572	590431	10040778
1938	544175	557755	867249	1113381	1504511	2013563	1175248	675460	884310	704760	648547	606455	11295414
1939	559497	530145	826731	999887	1325093	1152680	629260	478242	705991	554815	539854	524465	8826660
1940	505319	527458	629028	760948	1234202	1106900	606930	485984	636172	795249	605219	590830	8484241
1941	623097	684000	964569	1015133	2446212	1867679	1072719	984761	877510	2032964	950365	732547	14251576
1942	600364	581214	809469	1591553	1505018	1364361	788989	535784	466658	561317	602595	559400	9966722
1943	538673	510599	695741	1049765	1319251	1458357	1072050	831381	591903	666742	682788	605528	10027238
1944	469282	523727	788536	1052150	1739902	1683849	967505	500513	404820	653342	633189	539644	9954459
1945	557089	558284	663942	774042	1499968	1338466	956168	1136682	530644	852733	678823	525100	10071913
1946	548287	469766	667092	957621	968315	1091444	623459	803118	631333	654015	676146	601866	8692462
1947	455417	519433	783899	709821	1435752	1550600	953081	1525849	789533	1064767	685786	633472	11107410
1948	556618	598576	819576	1315293	1503689	1308117	707821	760754	394303	591675	675226	475566	9707214
1949	542696	513063	943540	1194524	1431744	2083730	1211573	694611	557345	795912	659956	552499	11181193
1950	561851	566940	820744	996502	1167254	1394776	1048511	500147	531469	553459	572399	618392	9332444
1951	506058	511300	565904	622673	1026893	1295322	736660	914688	611846	653002	698080	535201	8677627
1952	716736	531321	598792	1832290	2570314	2327234	995977	946665	814333	590235	641732	637695	13205310
1953	608553	539463	655726	653050	857432	1373819	746187	899061	494031	601197	689291	564789	8682599
1954	533732	505229	575300	634940	825742	532611	621872	453176	668718	763589	520114	468640	7103663
1955	452019	416581	785439	719376	908608	855214	470672	897514	418248	429344	467908	510713	7331636
1956	545902	407095	632773	715463	1025753	1120969	470203	487121	282631	372180	372180	450303	7047921
1957	502458	508965	682234	773702	1408239	2254649	1626707	1550093	1013867	1149868	1281666	710288	13462736
1958	568503	684418	859138	1250891	1758839	1470515	603568	466623	499296	481814	509844	518241	9671690
1959	514633	447373	502810	527427	793098	969669	543117	688088	443789	771559	709473	539807	7448143
1960	510581	495915	934494	1052347	9600822	1092988	581845	349978	419871	620451	593878	442793	8055163
1961	472001	507909	561246	641844	788601	828498	413652	623547	1004303	770113	621051	519157	7751922
1962	500577	879529	734652	1796473	1902114	1489032	1112431	529477	486876	838188	570034	505293	11344676
1963	324908	494042	278644	116064	133054	176062	135287	149475	170988	111401	110342	131171	2331438
1964	134331	353253	535422	998838	451787	131780	147404	380285	203084	237661	324477	389151	4287473
1965	582588	543134	595750	1238421	2144990	1916352	432972	444732	386635	362479	380928	406448	9435429
1966	413587	427386	579819	692843	781492	591876	525271	518340	465822	433518	450320	498687	6378961
1967	546233	489604	649675	804833	813782	660660	631624	652780	612874	404639	446279	544718	7257701
1968	658737	556845	915409	1095616	1004884	930375	781935	647505	540711	585545	560845	615184	8813591
1969	614082	520351	731378	942806	794572	825949	900411	867752	679583	548163	614981	676210	8716236
1970	691039	484645	514859	931340	902471	732296	710040	710035	644439	465399	398682	558792	7744037
1971	440531	384023	585074	684045	780001	695671	710114	748563	623074	541250	602623	744721	7719690
1972	658100	692447	334531	683544	754833	718719	691749	780619	721225	743016	611403	822826	7913032
1973	947548	680748	997853	1496439	659963	620281	541480	485414	379024	429044	373375	296318	7907487
1974	637214	277422	372314	427978	672272	761611	996004	990989	681161	495141	598229	473894	7404325
1975	647839	459175	446370	411904	735691	798613	995310	825632	795918	535432	371357	437203	7460444
1976	588849	622889	564589	569146	860228	618846	657015	592683	696616	645301	680949	687071	794782
1977	834658	414783	418002	171378	197231	402386	734623	1009299	801326	376212	349373	683558	6392829
1978	781780	512600	596902	428342	508428	652704	601190	905358	843516	600926	611978	888031	7931755

Colorado River near Grand Canyon – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	890917	701758	274692	427959	513525	538187	726256	908942	602520	512957	653257	556794	7307764
1980	496527	665472	553070	759811	708447	1094433	1167897	1009364	798620	599922	714915	586959	9155437
1981	565470	486407	386911	389655	436815	418716	656821	703871	538469	520973	471462	678905	6254475
1982	709972	569869	465621	518101	507280	509656	642133	743217	527255	583301	715494	749539	7241438
1983	692304	674079	587851	741721	966955	2240627	2318382	1247167	1118558	1094295	961503	986418	13629660
1984	1040648	969657	1024673	1058195	1688457	1572029	1447189	1096487	1037405	863000	930000	959000	13686740
1985	997000	955000	880000	844000	1342000	1427000	1009000	951000	848000	482000	460000	439000	10634000
1986	629000	719000	1019000	1246000	1748000	1281000	833000	980000	1002000	722000	764000	931000	11874000
1987	976000	753000	598000	591000	563000	687000	741000	872000	658000	398000	530000	560000	7927000
1988	550000	546000	578000	522000	506000	461000	591000	633000	566000	413000	442000	487000	6295000
1989	569000	493000	437000	461000	472000	624000	685000	695000	623000	442000	452000	496000	6449000
1990	527827	428578	465061	464781	546572	632070	638907	748355	573516	358111	382273	434967	6201019

Paria River at Lees Ferry – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	1697	2648	11157	3187	730	102	5247	10744	5591	0	4018	2549	47668
1906	1697	2648	11157	3187	730	102	5247	10744	5591	0	4018	2549	47668
1907	3199	1971	1807	2143	943	376	1588	10269	0	7305	583	1369	31553
1908	1483	2065	1050	482	730	304	3084	4918	5881	3410	583	1369	25360
1909	1369	2065	1153	376	192	102	2335	14948	12471	0	3806	2878	41694
1910	2549	1971	3314	688	192	793	2549	5345	18519	5247	3187	1369	45722
1911	2768	3336	2022	376	192	688	3526	4274	12672	1697	1209	1369	34128
1912	1483	2175	4497	2143	192	304	3526	4918	0	10639	583	1369	31830
1913	1369	3813	1807	376	192	171	2878	5147	7854	313	2660	2022	28602
1914	2549	3228	1908	1725	943	688	8268	3622	0	1697	583	1697	26909
1915	2657	6246	943	2554	943	202	1697	4821	2768	0	2243	2125	27200
1916	3838	2270	2229	898	297	102	4274	5877	5461	1697	1725	1697	30365
1917	1908	4212	2768	1414	514	66	1697	3958	0	0	583	1269	18389
1918	1483	1971	4055	898	192	202	2440	1807	0	2022	1000	1269	17340
1919	1588	2935	2768	1414	514	66	3199	5877	5461	1697	1725	1697	28943
1920	1908	2935	2768	688	621	66	3199	5877	5461	1697	583	1588	27392
1921	2440	2466	2878	1414	514	66	3199	5877	5461	1697	1725	1697	29435
1922	1908	2935	2768	1414	514	66	3199	5877	0	1369	1527	1697	23274
1923	1697	2466	1697	2466	408	102	2768	6857	2554	326	3187	1751	26279
1924	1153	2525	2217	1891	106	354	3326	183	10047	1586	1778	970	26134
1925	539	2294	1847	699	326	357	3775	12918	19971	30449	1805	1179	76159
1926	1558	1725	1135	5540	688	199	900	1783	4049	1209	3241	1494	23521
1927	1816	4830	5355	214	213	1403	4579	7324	43624	1100	2045	1530	74033
1928	1547	2600	3936	243	484	213	2932	6279	162	965	1719	1231	22313
1929	1133	1899	2300	334	333	270	13684	18271	14159	938	772	827	54921
1930	1148	2323	972	59	171	126	4950	11770	3732	2426	2732	492	30900
1931	410	2543	846	158	579	55	1058	1390	1725	1767	1414	577	12521
1932	1169	14363	5855	1499	463	381	6528	25062	2194	1697	1285	1050	61547
1933	704	1849	3772	619	374	267	4947	3806	3756	1885	1356	2672	26008
1934	2279	1594	1025	147	5183	365	1313	9838	876	249	855	2105	25829
1935	2390	2869	3728	4002	855	323	1100	2639	3819	470	1456	1547	25198
1936	1758	3819	1749	410	347	357	18006	16186	10944	2660	2288	1313	59836
1937	484	6880	10740	4457	374	106	3911	4196	4331	1684	1451	1778	40392
1938	2211	1988	18350	1588	713	1443	351	2154	5809	1478	1456	1722	39265
1939	1871	1287	3382	806	364	277	243	1372	40619	1313	1323	1443	54300
1940	3710	3791	975	131	418	313	354	3788	24611	3156	1899	2191	45336
1941	3256	6831	6850	8423	3632	451	3986	1133	1130	9706	2777	2042	50215
1942	2203	1891	3219	2120	318	301	1242	2976	583	1968	1588	1997	20405
1943	2796	3205	2857	975	388	274	87	8722	3262	7844	1177	1962	33548
1944	1282	2606	8146	2741	1435	376	347	166	76	304	1229	1305	20012
1945	1758	2267	3416	1587	40	301	811	6934	3680	8370	1432	1184	31780
1946	1245	1813	1885	1231	415	289	3242	13486	795	5368	2732	2117	34618
1947	1172	1719	1104	203	297	418	90	19896	502	4231	1527	3501	34661
1948	2018	5212	2194	1351	139	856	317	6414	221	1071	1663	1491	22946
1949	1140	3211	5345	3237	350	5327	276	2025	3624	1559	1242	1659	28996
1950	2645	3228	1597	187	425	381	4117	753	1200	203	1276	1781	17791
1951	1812	1435	1290	876	1331	398	62	8065	752	386	1080	4091	21578
1952	3215	2478	4811	4331	350	411	1360	3042	1950	542	685	1953	25125
1953	2288	1329	1282	458	153	423	5482	11281	367	543	1874	1172	26652
1954	2327	1751	2538	670	343	469	3035	172	7050	5647	896	1913	26813
1955	1542	2434	3520	333	28	90	1001	7948	49	188	1218	2154	20504
1956	2091	1281	684	262	157	411	1574	2301	30	704	854	700	11049
1957	2714	3336	1104	737	1281	268	5552	6033	310	9405	12369	1580	44688
1958	958	4450	6927	3495	1447	33	791	5138	16488	758	1177	1138	42801
1959	1327	1401	1003	109	49	388	365	10846	701	583	1432	1553	19757
1960	1277	2606	3410	350	231	992	394	52	519	7200	1841	1306	19979
1961	633	1050	1651	786	3	362	1114	18926	14482	297	1014	1019	41336
1962	1361	7313	2041	1030	439	192	437	143	6348	2184	772	1058	23517
1963	943	1820	771	226	432	343	354	12471	9471	1743	1610	906	31089
1964	813	1269	1439	1440	884	410	2031	5414	348	334	1153	2475	18011
1965	1643	1307	1252	5056	1269	257	1145	2925	2768	1252	5345	4644	28862
1966	2125	2279	2703	566	52	352	921	1121	1663	834	1046	6998	20660
1967	1851	2151	1169	439	646	334	2925	4644	17400	411	918	1689	34578
1968	2395	5834	2851	1290	834	299	8483	11466	423	503	827	1019	36223
1969	9930	4317	6474	4008	1003	372	5628	5067	2440	1244	2117	1982	44583
1970	2368	1708	2540	382	415	341	1252	6375	1406	302	1542	1916	20548
1971	2211	1553	1634	148	275	337	1293	10950	688	3997	1700	4381	29167
1972	1397	1390	501	90	13	5620	324	4644	4306	18191	2802	2058	41336
1973	1169	5141	9437	5183	1659	452	0	2721	701	350	1209	1889	29910
1974	1881	1995	2041	448	19	360	1597	1244	701	3602	3592	1402	18881
1975	1386	2351	3353	1849	386	445	4206	1663	3486	308	1292	1916	22641
1976	1572	4683	2229	2243	633	349	299	75	178	425	918	704	14306
1977	1138	1254	519	257	389	168	1013	1889	456	892	1046	1483	10504
1978	2512	3118	8431	2920	269	333	87	134	72	834	10896	973	30580

Paria River at Lees Ferry – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	989	4512	22712	9272	3760	688	231	2298	11	640	2217	2125	49455
1980	4958	23752	9002	6354	3536	537	744	2049	21165	1921	1977	2377	78372
1981	2134	1686	2721	1483	1059	759	4304	6837	4203	4780	2085	2117	34168
1982	1780	2854	2715	1945	867	0	257	6064	1918	1526	2016	4035	25977
1983	3238	4598	7905	3720	2074	724	3274	5264	2880	2850	2697	2455	41678
1984	2203	1807	1528	961	22	0	4318	5440	2016	2757	1738	1756	24544
1985	2426	2667	2975	1988	386	112	1960	866	1463	3503	2057	2022	22425
1986	1875	2379	2309	1319	15	0	1770	3473	5611	3143	2222	1927	26043
1987	1614	2344	2222	874	1475	0	425	6132	686	2361	5541	1113	24788
1988	1235	1823	1166	2744	590	109	86	3612	1211	903	1736	1527	16742
1989	1614	3769	2187	210	130	0	1544	2969	22	380	783	1171	14780
1990	1207	1666	1087	314	128	486	3161	627	2118	1319	719	644	13477

Little Colorado River at Cameron, AZ – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1906	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1907	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1908	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1909	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1910	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1911	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1912	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1913	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1914	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1915	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1916	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1917	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1918	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1919	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1920	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1921	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1922	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1923	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1924	7334	8086	14114	11417	4272	1507	6700	33757	16661	9413	3989	3498	120749
1925	7334	8086	14114	11417	4272	1507	6700	33757	16661	4917	3764	1508	114037
1926	627	106	7919	24849	5248	0	333	6892	47183	1757	887	515	96316
1927	2525	31391	32039	14920	2863	42005	16152	26932	113859	313	0	0	282999
1928	181	8759	21532	2178	0	0	1756	6519	2875	0	7347	451	51598
1929	254	597	18053	46033	1067	0	76493	144055	92131	9885	238	141	388948
1930	358	597	9456	7952	362	0	39817	88206	5314	0	767	2934	155763
1931	801	6312	12472	4045	6020	0	18190	66854	15442	11560	17551	4782	164029
1932	8458	79339	62853	22998	4523	0	2428	31286	2790	1367	0	0	216053
1933	0	3674	10721	5281	5114	0	14264	25317	27112	25794	795	677	118750
1934	410	264	609	365	0	1407	1421	26999	8112	0	0	0	39587
1935	17385	14048	16188	21480	1264	0	361	42638	21317	1214	0	394	136287
1936	335	1950	9614	14548	239	0	2824	59376	34988	56	4862	0	128793
1937	0	59709	47476	26382	1122	0	4557	3287	6537	5027	0	190	154287
1938	0	509	54861	1240	0	0	0	14335	17508	0	0	0	88451
1939	101	694	14577	11836	0	0	0	3295	3795	0	0	0	34296
1940	507	2625	5665	1902	0	0	9475	54690	50668	17875	8707	20065	172180
1941	52137	38586	58520	31888	42622	4230	2813	34700	30434	44778	2928	1900	345537
1942	5963	3197	8054	14950	2828	0	0	134	0	333	344	0	35804
1943	22	3342	22673	3716	0	0	0	21550	11694	370	0	0	63367
1944	0	44	9627	21238	12082	0	0	0	8168	1617	788	598	54161
1945	222	2396	7098	19903	9563	0	7410	46514	394	0	0	115	93614
1946	3751	1159	1591	862	0	0	7400	67718	39707	328	14920	3280	140717
1947	3019	4214	2726	163	76	0	0	124073	18151	57297	675	652	211046
1948	2776	3037	7437	18189	386	914	3774	24023	542	3377	2067	1325	67847
1949	15403	6411	37886	21030	2705	1753	8466	49234	9671	4931	239	19	157748
1950	158	5315	5676	1045	0	0	5537	1188	1508	0	21	60	20508
1951	128	7	0	123	590	0	2859	31260	16124	6876	98	94	58158
1952	104788	4791	5036	35398	9482	172	1377	14942	25039	87	464	2508	204283
1953	1379	668	5970	1548	0	0	10724	17914	204	0	124	17	38549
1954	113	12	6847	5454	54	281	27261	7482	23351	3160	65	40	74121
1955	95	83	184	6	0	36796	8869	165648	3238	0	0	44	214964
1956	102	956	2017	333	17	0	1426	10346	0	0	0	0	15196
1957	32904	19212	10045	520	26	274	3001	63633	8339	9749	11802	809	160313
1958	258	2305	12190	12025	729	172	320	27476	30975	8218	60	19	94745
1959	108	38	737	646	0	51	69	42350	238	5002	32979	12164	94381
1960	15285	3862	34506	5010	11	14	0	0	344	6951	76	79	66137
1961	61	6	887	3137	0	0	508	11254	4741	388	3525	4	24512
1962	78	21759	5464	23123	539	0	0	199	5518	3418	2958	102	63157
1963	12	1001	510	473	0	0	0	49214	26940	1408	646	0	80203
1964	0	0	0	7341	1386	62	7160	121259	23582	417	0	0	161208
1965	35398	5741	5838	23639	7457	0	14988	12032	18872	316	3720	15676	143678
1966	46887	2037	26082	4577	35	0	703	20835	10002	3441	41	14732	129370
1967	42	23	0	325	0	2707	16389	103877	43989	342	0	75	167770
1968	3310	18923	19143	18120	5540	0	4733	40401	1	3920	170	0	114260
1969	22346	3582	6974	10183	495	0	9317	9376	20496	4296	1074	31	88169
1970	53	0	2058	1250	0	0	525	16169	44571	516	8	43	65192
1971	39	2	0	0	0	0	94	72044	14556	57342	5759	18054	167889
1972	5800	151	0	0	0	189	6319	6183	1328	195905	11496	4097	231470
1973	10330	11638	33917	63779	79740	1934	28	244	41	0	0	0	201653
1974	351	29	3143	1080	0	0	4784	7190	2521	8375	11258	0	38931
1975	10	25	5522	8851	2786	0	7089	1165	22977	135	0	571	49140
1976	119	5870	6950	9585	4379	0	13766	4784	6903	387	73	0	52816
1977	2797	263	11	1350	1	0	11837	43030	6725	4575	575	108	71271
1978	507	2472	44928	12709	1026	210	0	289	1093	5541	34144	66467	169405

Little Colorado River at Cameron, AZ – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	12965	21326	30647	42849	9878	1695	0	4741	0	203	1775	249	126327
1980	6921	57011	17841	28148	16574	99	10	5561	8729	0	0	5	140900
1981	55	34	18	492	34	7	15008	6139	11782	19768	31	850	54218
1982	2764	10255	27737	8724	1418	0	144	50563	23256	300	3059	17504	145723
1983	4514	8384	33256	36500	17514	11	4162	11112	6832	16093	1431	6336	146145
1984	4901	390	1782	957	0	0	8050	28728	18380	10066	168	7972	81394
1985	13357	10130	37992	21670	8540	0	1025	3259	4615	1710	10346	3685	116329
1986	141	4488	8009	3370	0	0	9228	7355	8818	8020	10545	5277	65251
1987	5841	6357	12544	11689	3498	587	735	20121	191	627	42568	0	104758
1988	1535	15228	7321	9149	1883	903	1251	23272	10920	0	0	0	71462
1989	117	225	4167	1163	0	0	1585	15761	3	119	0	0	23141
1990	19	255	12	60	0	0	4677	7786	13182	1184	1375	2021	30571

Salt Load Gains – Lees Ferry to Grand Canyon

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1906	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1907	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1908	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1909	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1910	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1911	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1912	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1913	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1914	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1915	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1916	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1917	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1918	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1919	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1920	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1921	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1922	75912	67135	47207	70604	98933	151826	117597	54876	31541	41296	58949	70609	886484
1923	69185	77263	88951	89535	104081	253525	138792	-8283	124179	11044	117987	166571	1232830
1924	99502	53406	53201	92200	116237	232826	168136	78841	51719	24794	50647	77074	1097983
1925	63559	65668	48782	79512	136522	225578	170115	41670	-140465	-17684	33698	46542	753497
1926	81243	100008	-4694	11936	9765	246342	330129	73572	78086	-6141	55201	81130	1056577
1927	90789	103807	12021	102726	-38791	171890	197518	-22460	-482856	-236365	-39138	71773	-69088
1928	76936	89898	-58973	107400	-53772	223201	319026	55880	66092	-88495	-9219	79802	807775
1929	90656	104842	-132116	-21790	-77876	309508	190949	-533538	-831655	-237854	0	56753	-1082123
1930	98248	66301	34294	-15114	248302	261680	307509	-271256	-28083	-64108	28476	89835	756084
1931	96242	96660	68309	114956	293732	407506	234224	63708	82147	-46717	37345	93719	1541834
1932	101171	58292	7229	13119	-17744	213122	258100	-59586	18626	13962	34302	95790	736384
1933	95126	122136	50765	116085	270122	227897	323358	78888	36886	-900	42027	82667	1445056
1934	94575	112502	100399	101996	282589	287521	122110	68242	139410	66113	60851	93568	1529875
1935	91626	112907	99078	136710	282134	223076	324106	48455	9143	23141	43746	96272	1490394
1936	97263	107779	72698	55862	-2414	324278	308808	-53477	-32078	6771	15676	83984	986150
1937	105340	92740	-25544	31734	18062	359311	323024	76886	43803	-22131	36299	72061	1111384
1938	91250	101778	-84706	-899	-6421	332222	296841	67056	-236661	-61630	23613	72020	594465
1939	88113	117704	-79189	110355	154296	403175	240049	90551	-55656	26512	49760	94781	1240451
1940	100570	119883	83288	125830	222605	407403	221028	75617	-3012	-109409	28862	71318	1343982
1941	94055	109931	184032	145437	317072	341444	216087	111547	85769	181171	105158	60773	1946108
1942	51226	68838	167959	522078	378692	145582	-28845	-30020	869	71010	40702	21623	1409693
1943	54760	46561	66117	160854	390818	366286	371757	-46958	93800	96086	97415	70395	1767889
1944	44709	56783	144616	165945	263758	401438	147467	53877	37459	113499	114412	70291	1614254
1945	83610	75581	94149	20088	312221	289199	130538	142553	45260	96592	74567	-24638	1339719
1946	-27542	-40608	19340	134698	-106021	-4897	-138047	90370	70596	136983	117195	58549	309715
1947	24258	53401	152001	22958	93282	174617	-125813	527516	169255	127538	63176	65804	1347993
1948	64392	50107	74629	189169	170623	179044	76842	103284	48560	64939	84539	-26548	1071480
1949	57356	52403	66635	189763	96375	264680	113102	84787	76977	36099	39072	46649	1123898
1950	62321	68055	92045	94781	220890	292232	116039	80735	50239	71644	39361	68607	1256949
1951	47003	51956	59282	85281	87075	111423	82649	17475	69269	52322	78299	54179	796214
1952	18439	38627	8454	115118	528164	457385	112429	76962	99116	66335	53127	73111	1647267
1953	61481	58885	80977	74498	123845	266389	121983	116324	96211	45907	70557	55671	1172728
1954	53526	52242	71001	93428	110505	48734	28273	73126	31779	52984	37784	43396	696777
1955	55025	71073	39622	70492	45190	56854	72785	46127	70428	74459	17418	41703	661176
1956	58903	9388	42741	41420	-3824	134905	55233	11971	40127	54331	71359	66946	583499
1957	48615	49830	57870	35779	19677	109143	-108581	213082	59504	31595	138206	57027	711948
1958	47177	34600	67405	196592	-39661	35888	137886	21840	-81604	-14673	-66403	-35917	303130
1959	38190	10835	26565	43961	86214	122095	49938	48380	44438	83181	80746	58228	692771
1960	57893	59477	-5163	49028	177646	151529	154524	73428	73370	44235	84183	46084	966234
1961	56827	40604	59257	59436	85324	65806	24782	51360	-52235	22731	42172	46783	502847
1962	56365	20054	39334	3046	121084	-92803	47222	69421	-7078	55794	26924	55052	394334
1963	63833	680	23852	30036	53130	21243	48860	29703	81899	55370	52746	50613	511975
1964	43480	45357	44725	42231	60484	56852	63121	40867	78995	70427	38367	1019	585926
1965	15206	31764	49182	-285	12438	-12551	82231	90211	64852	84065	100767	67482	585362
1966	39753	60684	84798	60446	87262	86392	96395	66783	55807	76053	69916	112212	896500
1967	77448	59920	41393	8344	4759	29424	92837	52682	116230	101126	91364	90177	765703
1968	57700	77400	27073	59652	37039	26772	90563	123001	95844	75892	128913	123185	923034
1969	69140	83962	37916	75468	68155	37790	92376	183920	116865	89280	96174	79449	1030495
1970	116350	104664	63023	72521	101433	75674	93378	84622	72736	95973	51474	34057	965907
1971	79502	41274	26557	-5555	11643	15621	-7663	25935	95707	76727	67974	75697	503418
1972	70944	70888	28272	26161	42211	57165	17193	35895	64131	86879	120562	43736	664038
1973	79063	114143	78431	51972	47131	24642	16586	51820	55836	56494	71093	71846	718466
1974	87907	77900	68197	30813	53439	84893	106403	121542	99373	67463	180246	100149	998325
1975	116529	67645	56804	52483	36605	67648	93006	97664	83339	95445	68325	70624	906119
1976	109853	55816	41561	35989	49859	58829	91324	76603	91718	133477	116276	119674	981078
1977	124792	55292	50754	40450	32396	38890	77816	34150	51572	86391	56236	703996	703996
1978	39682	37858	80165	4116	-43220	15362	18789	21000	38296	40194	43389	153748	449379

Salt Load Gains – Lees Ferry to Grand Canyon

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	133641	116096	57822	75371	60128	32249	38338	82815	67357	36286	39649	95322	835073
1980	49678	129254	35591	26423	20418	48568	89224	132479	91673	69495	95169	86981	874952
1981	63969	36439	37193	33194	15514	17449	11863	40543	55549	82527	54169	72515	520923
1982	45202	42234	58736	22769	36748	8541	36095	-1005	70134	-12965	-1106	34730	340111
1983	54151	15716	38108	7087	41096	-79757	53368	-15868	92040	35149	65421	156149	462661
1984	199380	82166	33440	-34016	6254	-28316	44407	139813	152523	45177	85095	180273	906196
1985	166217	99203	50033	28342	90074	61888	41015	52876	73922	84787	47597	67293	863247
1986	80985	21133	-80318	1312	45985	106000	83001	105172	95571	79837	76233	58797	673706
1987	203545	89299	63234	60437	69027	77413	87839	88747	90123	88012	57891	84887	1060454
1988	82230	71950	76514	88107	75527	72988	70662	52115	67869	80097	78264	74473	890796
1989	66269	74006	74645	81628	70870	67000	69870	64270	73975	77500	68217	74829	863079
1990	30718	-1764	30788	73298	78407	50846	37947	34927	59744	49852	62412	69212	576387

APPENDIX 3A
FLOW MODEL STATIONS
GRAND CANYON TO HOOVER DAM

Colorado River Near Grand Canyon – Flow in Acre–Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	390019	430284	671875	1289273	3020673	3664915	1584551	763827	564501	604767	510815	416863	13914363
1906	487524	539040	848134	1638040	3853213	4677464	2015822	968337	710758	762274	642071	521868	17664545
1907	579897	642071	1015115	1968451	4641936	5636721	2424994	1160188	849318	911492	766419	621346	21217348
1908	325871	358735	555915	1059821	2472949	2998764	1300820	632597	468280	501143	424462	347780	11447137
1909	585029	647795	1024392	1986807	4685754	5690013	2447093	1170847	857016	919782	773327	626873	21414728
1910	361794	398803	620853	1188315	2779674	3371808	1459709	707206	522164	559172	472819	386466	12828783
1911	413112	469365	1037814	1225323	2991856	3702416	2103655	595687	444693	1156241	477260	389427	15006849
1912	382519	363768	572002	920374	3514907	5705803	2715527	1057552	563120	654901	567067	336135	17353675
1913	389427	347978	554238	1797719	2981987	2755002	1531259	526605	627268	678290	569337	364558	13123668
1914	399789	434923	903103	1558892	4430741	5850876	2629667	1078276	645032	974850	557988	368012	19832149
1915	339194	429199	554534	1461190	2306954	3247460	1622053	497492	456240	545948	443410	377486	12281160
1916	425547	455549	1408884	1776007	3519042	4213626	2077996	1614157	693685	1412832	526605	402948	18527678
1917	297548	386960	537954	1549023	3670836	7219692	4227442	1152293	680560	499367	480714	437193	21139582
1918	386861	408474	686481	905077	2507293	4704110	1732584	582759	603977	571114	528579	443410	14060719
1919	718654	349359	682139	1379278	2932642	2011874	976923	571903	420613	394855	439462	426732	11304434
1920	439956	631709	713620	996364	5645603	6402547	2410578	950671	501637	548711	627761	437883	20307040
1921	444397	488610	969817	926295	3927427	7888803	2222082	1653633	777768	462852	450713	483280	20695677
1922	385427	472409	934300	1183841	4430818	5099029	1460416	735868	456064	319700	423600	437900	16339372
1923	400721	369383	499164	1306135	3568178	4643175	2326725	1440061	1310895	752619	766424	593548	17977028
1924	369361	529198	532121	1663760	2994490	3153765	1048994	334682	378893	407074	303010	11987416	11987416
1925	269873	426199	661616	1309705	2102292	2396266	1487407	802425	1195455	1046534	620637	460364	12778773
1926	371514	362441	654238	1650669	3378793	3479257	1428378	580144	387318	468481	371787	415724	13548744
1927	361368	462965	677603	1284118	3871931	3666078	2527177	993039	2166577	947555	778920	486374	18623575
1928	498241	501242	780289	986593	4270376	3766071	1553200	667150	374762	614762	589457	365857	14968000
1929	349624	361219	950612	1769679	3901445	4725292	2115819	1994687	1695297	946308	583447	459872	19853301
1930	317650	480681	612425	1670035	1998991	3076409	1153695	592552	530428	565879	445871	312792	12759352
1931	280019	385378	451879	575235	1165207	1410864	503898	324598	299072	534827	390115	273316	6594408
1932	306643	731098	847926	1723860	3969083	3619689	2066628	961065	540662	354481	395768	298957	15815860
1933	283523	276690	529293	520609	1390255	3973149	1180579	386578	418618	432264	309426	339640	10040585
1934	329271	316900	348947	452417	1102489	545601	164343	165957	171922	166435	171922	195831	4185362
1935	288074	306181	378216	731316	1361355	3992190	1513847	580144	454142	385533	335370	289857	10616225
1936	278666	331726	503837	1312680	3583550	2707478	1045305	924172	624207	362536	458546	338187	12740890
1937	217608	531110	821486	1565577	3471026	1366889	422856	452536	486128	396958	407423	12541219	12541219
1938	338125	358165	901421	1539394	3287790	4679473	1753652	543189	937799	592811	498949	432141	15862909
1939	360753	317677	818412	1210927	2407890	1672091	467989	244171	594931	353805	331800	309472	9089918
1940	282109	324996	467620	692658	1987308	1518568	432879	254931	479015	756923	408021	408038	8035246
1941	433678	514615	839808	1808912	4976264	4099895	1753037	860839	658720	1903684	952675	594532	18795169
1942	429497	435140	653008	2763412	3162968	4241516	1344753	486005	293657	356203	385830	373112	14925101
1943	347349	350945	579468	1417409	2160706	2675940	1459122	833169	494189	408468	476576	419721	11623062
1944	297666	362788	508814	1099051	3206010	4143920	1853878	455568	250992	361491	401123	344705	13328020
1945	356141	380602	471494	804508	2802646	2753891	1731516	1070515	393507	524497	465389	358847	12113553
1946	383811	332617	514228	1015750	1774558	1995203	784593	567231	372382	418798	492344	467989	9119504
1947	303138	371160	653623	785466	3087952	3235502	1328766	640274	894043	608141	490494	14348819	14348819
1948	427407	458274	668895	1732191	3392321	3357867	1009026	586969	242364	336219	434446	364688	13010767
1949	363151	374271	795661	1336482	2958827	4302807	2127502	632102	340309	520685	487703	380983	14620483
1950	358171	414147	669610	1191885	1940577	2925266	1401323	443824	343106	359154	355185	434355	10836603
1951	326381	366273	428882	535426	1551970	2800305	1397019	832554	451762	424886	465627	353313	9934398
1952	592626	396323	434724	2209421	5062348	5203117	1590093	833169	595645	392850	396482	399860	18106658
1953	407484	377436	477581	533284	988735	2932406	980127	703428	290384	325090	428376	359462	8803793
1954	332899	352777	423471	565833	1211323	797367	667765	349193	415166	526219	359589	295821	6297423
1955	261019	268893	585862	621232	1515692	1553529	617959	667765	264559	236485	297585	353436	7285616
1956	398445	310271	511338	877699	2125657	2583707	597791	383073	184823	202236	325016	274300	8774356
1957	342675	370494	541360	811648	2501352	5541106	4033031	1671872	884244	783363	891980	536918	18909843
1958	414740	355831	748930	1579858	3900216	3763691	683137	336711	379225	345996	384878	387562	13460775
1959	334006	325675	364688	423081	1010871	1804192	795661	487542	270748	528494	569284	394141	7308383
1960	347656	353412	820257	1650074	1580254	2211801	678218	232550	218502	382151	379820	300664	9154759
1961	291210	352833	378708	587255	1147375	1692322	416892	374280	747978	771681	569998	409206	7739738
1962	368562	831959	610212	2467077	3716365	2850290	1821289	511707	318292	557147	442955	344090	14839945
1963	181760	373987	203035	71525	78705	147810	107912	112032	121688	77291	75928	77476	1629099
1964	78644	245099	382458	795582	356080	76702	84116	286536	190595	298527	370716	412711	3577766
1965	607506	539330	567908	1251390	2281838	2282017	724335	879286	767019	675144	612306	588322	11776401
1966	528617	523779	718186	864608	1011486	791417	697894	693590	623612	566555	589457	619804	8229005
1967	648704	563711	704043	800937	861454	711085	692975	785823	712870	459012	495141	597115	8032870
1968	658542	533454	900192	1077636	975822	925303	864528	775370	674787	646859	675382	646691	9372566
1969	627798	508950	726794	927088	798736	869963	993654	1002263	841996	662231	750953	831939	9542365
1970	767991	493733	509801	968741	946308	821169	814723	797506	756309	541591	482645	699739	8600256
1971	543804	429920	644399	1900279	933395	896145	932781	932166	820574	675759	786061	994269	9589552
1972	848048	471331	363643	793797	911874	890195	871292	967229	944939	916794	730126	1069285	9800553
1973	1231000	839179	1204560	1916061	845467	771185	470840	585801	449441	515766	444978	354297	9828575
1974	876826	326452	433740	506626	815952	932443	1234689	1228540	828310	608982	740242	582173	9114975
1975	803655	565377	548170	504364	913719	994924	1245757	1028703	991948	648704	441349	523608	9210668
1976	718186	767337	712037	693828	1079123	759879	806729	722490	862227	819027	902691	828865	9672419
1977	1017635	487023	491785	189166	220129	470053	887894	1245142	975882	418860	387199	803655	7596413
1978	930321	591480	694305	481336	580513	765829	697290	1090336	1014560	787118	721796	1054528	9331002

Colorado River Near Grand Canyon – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	1056987	830848	318019	500080	601972	631943	857765	1079123	709300	618574	813433	678833	8696877
1980	599759	836363	670840	964576	887894	1463228	1561808	1323847	1019916	764917	924708	748315	11766171
1981	716956	615916	477274	481514	543066	520014	842392	906340	682522	662231	595645	876826	7920696
1982	920483	735323	586846	658720	643170	646819	825791	964755	671216	752004	941369	988735	9335231
1983	906803	889923	757606	983900	1312065	3325486	3415535	1828164	1576660	1617916	1442974	1487999	19545031
1984	1471338	1410247	1505850	1524892	2513652	2521189	2176858	1614148	1470346	1378571	1479471	1529652	20596214
1985	1591000	1512000	1346000	1251000	2080000	2387000	1739000	1609000	1407000	751900	744200	708000	17126100
1986	1041000	1207000	1587000	1784000	2754000	2104000	1320000	1580000	1658000	1162000	1250000	1549000	18996000
1987	1615000	1153000	839900	829800	786600	1019000	1130000	1348000	997500	562100	786500	834700	11902100
1988	859900	827600	731200	623500	582800	544500	731000	803400	718900	539400	625300	649900	8237400
1989	743500	674200	616700	573000	541800	750000	835200	906600	819600	572200	591200	660700	8284700
1990	689700	586100	656300	577700	627400	759700	779000	976200	754500	463600	500000	579400	7949600

Colorado River Below Hoover Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	449624	487947	717881	1292715	3183283	3387669	1573746	896719	883944	705107	590140	475173	14643948
1906	531717	580747	874927	1610378	4029192	4290685	1969931	1103734	1087390	858384	711494	564404	18213183
1907	609489	668663	1023708	1911320	4830580	5146175	2345264	1299854	1280129	1003984	826460	648938	21594564
1908	395616	426894	614561	1083727	2626764	2793579	1313098	760524	750098	604135	510301	416468	12295765
1909	613809	673547	1031974	1928040	4875101	5193702	2366116	1310750	1290837	1012061	832848	633635	21782420
1910	425861	461083	672420	1200761	2938415	3126269	1459061	836793	825052	660679	555011	449343	13610748
1911	509925	563464	1104486	1282947	2964245	3640521	2118900	683691	539983	1217198	570978	487383	15683721
1912	480809	462962	661149	992712	3462059	5547245	2701248	1123271	652696	740047	656452	436663	17917313
1913	487383	447934	644242	1827725	2954853	2738820	1574122	617942	713748	762309	658613	463713	13891404
1914	526600	584400	1032000	1622000	4174000	6594000	3049000	1467000	728400	915000	679300	499300	21871000
1915	469500	890900	750800	1659000	3219000	2990000	1903000	801800	401800	549100	442500	407100	14484500
1916	685000	823000	1543000	1813000	4187000	3647000	2216000	1811000	771500	1420000	741400	463700	20121600
1917	454300	412200	564100	1327000	3503000	5413000	5384000	1495000	652800	571100	497000	461000	20732700
1918	460900	346000	871600	929900	2263000	3789000	2597000	802800	535100	578900	544700	479000	14187900
1919	266400	392200	592200	1387000	2796000	2210000	1277000	729000	403800	428300	486800	666400	11634900
1920	733200	1952000	1006000	1307000	3557000	7683000	2585000	1223000	593200	516500	688100	484200	22328200
1921	473700	471900	943000	998400	3363000	6630000	2730000	1959000	1161000	619900	532300	629300	20511500
1922	522600	564300	926900	1311000	4327000	5865000	1948000	879800	611800	386400	425100	460000	18227900
1923	390300	362600	533800	1297000	3633000	5153000	2554000	1556000	1347000	876400	904800	657200	19265100
1924	564200	556400	616700	1751000	3040000	3242000	1272000	412700	336900	408700	459300	398100	13058000
1925	281200	440900	645000	1335000	2032000	2415000	1633000	785200	1213000	1095000	650100	479000	12996300
1926	399300	362700	594300	1579000	3348000	3696000	1506000	610100	329300	500700	343100	427000	13695500
1927	377500	532900	682000	1224000	3845000	3524000	2746000	1041000	2181000	1079000	803400	499500	18535300
1928	490100	499600	663800	1013000	4023000	3931000	1668000	706700	401500	591100	591100	405000	14983900
1929	362400	365000	891500	1733000	3576000	4805000	2104000	2276000	1670000	1014000	601600	493300	19881800
1930	355100	415100	621800	1510000	2022000	3031000	1235000	1733000	603700	617600	507000	363800	13015100
1931	308100	424400	448400	554800	1124000	1464000	580400	365900	260300	592700	432700	294700	6850400
1932	363900	848400	865900	1761000	3789000	3607000	2331000	862600	755200	387100	420200	367100	16353000
1933	308800	310600	561700	523200	1265000	3947000	1401000	462100	411800	482700	330200	405800	10409900
1934	378100	355400	393500	439861	1110482	631348	171122	161776	197081	191168	209398	273255	4512491
1935	326258	212155	433186	434208	567047	983618	705273	625953	594395	604678	572200	298818	6358789
1936	297666	325514	559668	587969	559422	610521	696650	612487	555836	453662	360362	315313	5934470
1937	292624	312068	514228	554250	547125	587433	668995	664076	556372	506112	413322	401520	6018105
1938	390268	361497	465283	578984	554319	623612	680063	635791	556253	774140	745003	398568	6763781
1939	771066	1282372	624108	628968	399205	632538	691746	717571	608141	676374	711085	702199	8645373
1940	681907	464774	634561	622422	575286	582316	673299	675759	695018	796276	775945	795661	7973224
1941	589244	500120	551982	518170	1435142	1809547	950612	1428993	1576287	1640513	1816688	2070318	14887616
1942	2010674	1550066	1425303	1301374	1343524	1560816	1285110	846697	1024676	1162748	1094892	1156599	15762479
1943	1109253	823073	970289	915187	1029317	1040147	1109253	1042230	1041933	1178735	1178794	1277116	12715327
1944	1302326	1269800	1307246	1170463	1215628	1097272	1113097	1210709	1131785	1225466	1185935	1199026	14426453
1945	1238993	1099652	1250061	1042528	1068055	1014560	860839	884820	869368	1079738	1041933	1061906	12512453
1946	1116016	1047447	1004017	872343	902651	817004	837473	750775	758689	856535	762259	859609	10584908
1947	983816	885831	955331	856657	951227	918757	925402	865143	843186	828250	880079	1063136	10959015
1948	1169611	1137775	1149835	1202001	1141841	1075850	1155369	967829	981237	916794	1028246	1124010	13050298
1949	1211938	1214061	1291259	1178199	1026243	985998	1002094	1061906	1140711	1176275	1021701	1237764	13566149
1950	1277116	1131864	1245757	1089537	1120320	959816	981971	871907	823549	847926	815219	850386	12015368
1951	927861	756428	859609	796772	898347	690853	783363	906340	847946	755684	817599	828865	9869677
1952	1069285	1212553	1371194	1384681	1532293	1431690	1303556	1302746	1359689	1291259	1214497	1237375	15815318
1953	1226696	1043559	1046534	971122	997343	819384	869502	967829	967551	801810	748573	813493	11300396
1954	835629	721439	910645	974692	1100644	929468	1026858	887894	933038	775985	675977	740936	10513205
1955	724949	704777	905726	882459	927247	679547	846697	788897	621232	526096	487346	492400	8587373
1956	583095	498654	769221	840211	748315	784276	782134	695435	610521	489633	554111	457228	7812834
1957	534581	470018	738477	890195	768606	828310	786438	785823	784871	696665	958030	1080968	9322982
1958	1245142	845288	1435142	1473344	1115401	818789	894658	911260	792012	728024	745598	873137	11877795
1959	795046	647573	827635	916377	949382	759879	848541	893428	772970	692361	606951	572028	9282171
1960	628412	511826	710192	908641	855920	1014560	983816	959221	805698	556286	489012	571597	8995181
1961	590597	577040	935855	904476	943234	841401	821486	739092	690258	539254	516741	486436	8585870
1962	481639	497121	798121	902096	886664	799152	823946	857150	715845	634561	612902	606092	8615289
1963	482254	574818	871292	864608	911260	763449	908185	856535	724176	527387	464079	585063	8533106
1964	632717	582693	799965	859252	844237	718820	866373	731098	622422	586539	445157	469219	8158492
1965	489325	498065	785823	698589	871907	785466	814723	817182	655150	534520	417725	423533	7792008
1966	252533	439861	784593	845566	887279	783681	888509	839318	671811	466944	473124	447944	7781163
1967	499840	574263	846697	771185	889124	781896	831939	755079	494308	575840	556491	355588	7932250
1968	395801	495548	849771	883054	852845	752143	756923	692975	663481	484251	456760	552597	7838149
1969	548908	551714	824561	894360	834399	753333	772296	692975	618257	522898	425699	453416	7892816
1970	602526	535608	753234	918757	926632	780111	792587	676374	506983	583341	449683	497073	8022786
1971	560775	663124	859609	913402	860839	740837	739707	741551	623017	502668	452357	506358	8164244
1972	567662	636188	904496	877104	865758	795582	768606	756309	634323	517303	397077	379138	8099546
1973	481066	553603	610704	864608	1010671	683117	823331	856535	659315	559791	526500	571228	8300669
1974	536445	488703	863913	951485	958935	880079	847312	947538	713465	613655	503888	425193	8731511
1975	515335	617027	748930	871153	968444	806888	830095	804884	667646	548969	485858	500885	8366114
1976	508817	499415	909415	879484	929091	716440	842392	894043	608736	351222	304368	486989	7926545
1977	505443	608141	854075	897783	760613	720010	892813	876211	469256	428252	562743	7870772	8163772
1978	234884	429198	740322	901501	859609	653960	830710	892198	688473	502054	375298	567886	7476095

Colorado River Below Hoover Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	217669	291352	617959	703349	1010256	865203	857765	875596	702754	530338	542924	505312	7720477
1980	471494	267763	929706	1129405	1260514	1056809	1189802	1194107	878889	986890	836640	885434	11087453
1981	618574	535997	814723	1016345	857150	834855	863913	914949	662291	379384	387973	397216	8283370
1982	462824	548493	791972	1042528	843007	634918	735402	764302	393864	392543	379404	463746	7453003
1983	1176198	364661	633540	1059927	1215867	1886280	2574346	2421817	2186577	2105652	1749817	1692297	19066979
1984	1888263	1764693	1770049	1564164	1887470	2076098	2184792	1905123	1621685	1587569	1543536	1617718	21411160
1985	1752000	1582000	1402000	1330000	1436000	1665000	1735000	1684000	1280000	1034000	1096000	1212000	17208000
1986	1619000	1045000	1614000	1407000	2049000	1730000	1630000	1426000	1351000	1179000	1057000	1421000	17528000
1987	1622000	1139000	1137000	968100	989800	853500	845200	1022000	884000	685900	548200	639000	11333700
1988	829500	743400	827300	996500	879700	912700	892100	1015000	709500	525300	512400	576100	9419500
1989	506800	529000	890000	975100	1124000	966600	901500	871000	648600	629100	588300	594700	9224700
1990	543700	467900	947800	920900	952900	966000	1070000	1020000	620400	551300	491100	652900	9204900

Virgin River at Littlefield, AZ – Flow in Acre–Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	14762	17053	22088	27811	29858	9010	8190	12333	10742	10309	11677	14114	187947
1906	14762	17053	22088	27811	29858	9010	8190	12333	10742	10309	11677	14114	187947
1907	14762	17053	22088	27811	29858	9010	8190	12333	10742	10309	11677	14114	187947
1908	14762	17053	22088	27811	29858	9010	8190	12333	10742	10309	11677	14114	187947
1909	14762	17053	22088	27811	29858	9010	8190	12333	10742	10309	11677	14114	187947
1910	22484	15997	64957	47345	26129	8103	7745	19394	24130	12738	8103	11470	268615
1911	62500	19719	60519	71751	58934	17151	38173	10202	38471	14639	10404	10836	413299
1912	9409	8696	10914	14467	34211	12244	21929	14877	10097	38887	12473	11153	199357
1913	11153	10771	17729	30572	17016	11400	11390	16224	12397	10994	14238	13213	177097
1914	22009	20302	24782	61859	51407	18762	21929	8933	7797	8538	7490	7745	261613
1915	9330	12704	18521	38240	69870	23134	8933	6993	26201	13372	16998	17650	261946
1916	20186	16140	61708	66996	50138	20296	28585	34765	14620	23752	10864	9884	357904
1917	12579	14279	13213	30341	49187	20985	10280	6152	6132	9489	11093	12104	195834
1918	9806	7837	49504	26047	35558	9790	14956	9726	17229	15035	12397	14084	221969
1919	10914	9913	17887	29344	17333	8257	11707	11153	12627	11548	13318	15352	169353
1920	14797	17570	18918	30188	53467	15005	3133	15114	6386	12896	17382	20186	225042
1921	16699	12489	21453	27274	30408	6745	5328	21850	11247	17650	16231	41502	228876
1922	26050	24514	34290	48745	109014	34713	15431	34133	29804	41660	46292	44196	488842
1923	31041	28736	26684	44834	51644	12397	10202	9884	7643	9489	12627	11390	256571
1924	13609	7192	7087	14774	14401	5534	9250	5938	15542	7982	10327	11787	123423
1925	13846	12632	11231	18225	12975	11784	5891	20741	8257	5328	6178	9172	136260
1926	9567	6326	7270	50126	34133	7719	7388	6731	6708	7127	15005	12262	170362
1927	12896	17070	18838	32106	28506	8793	8379	15511	27428	23118	9944	9567	212156
1928	9250	17356	20106	23440	16224	5105	2230	3268	4507	4678	7490	7594	121248
1929	7531	9053	13926	21445	26526	6730	15352	23594	27197	5343	7557	9039	173293
1930	13773	14551	9900	8509	28039	6665	6641	52450	25528	15987	18447	13097	213587
1931	14450	17217	7932	5546	4187	3297	3929	8977	6308	5393	16959	11806	106001
1932	9531	76331	41628	45878	63272	20470	23427	60013	7200	10638	9997	15987	384372
1933	14142	13274	12359	9223	17709	6843	7563	4784	4963	5589	7676	12298	116423
1934	12482	10219	7256	3666	3406	3314	4144	3923	4112	5116	6784	12974	77396
1935	14265	13607	15126	34810	31728	8152	4661	12298	5284	3991	7319	11006	162247
1936	8670	17602	12605	17673	9039	3969	18693	11867	8509	11744	12258	11806	144405
1937	9408	29102	41628	47009	46301	8926	7809	4304	9997	5798	8390	15495	234167
1938	17217	17939	84854	56827	44210	6605	4642	11252	5451	7379	11306	14204	281886
1939	15557	13051	14880	15174	8731	3642	3554	3640	43855	9039	7736	9777	148636
1940	20291	39575	17647	14281	5657	3261	3345	6702	36358	9100	10175	12974	179366
1941	14880	30768	62103	62183	130479	19339	22074	20414	5451	22812	18923	17340	426766
1942	19676	15495	20168	49925	28346	5088	4237	8916	4034	9100	10294	11252	186531
1943	17955	20827	36278	34096	11621	3999	4150	12667	5897	8670	10116	12913	179189
1944	13282	14956	25702	25230	48883	10651	3948	4071	4207	5011	12913	11621	180475
1945	11314	17550	20353	19577	24841	4737	4612	25764	7974	19799	10354	14142	181017
1946	13097	9664	10576	11663	4593	3975	6272	13343	3927	37016	32847	22074	169047
1947	15126	12274	13404	15769	16725	4290	4679	13896	4207	8055	9223	13835	131483
1948	10576	12195	12667	19994	10207	4082	4243	5380	5939	5977	9521	10023	110804
1949	12605	14384	17647	30467	27977	11782	4501	3960	7022	8608	11008	13404	163365
1950	14880	16050	13835	15293	6518	4028	11867	5626	5915	4858	8866	10269	118005
1951	11006	7720	8055	6962	9777	3725	5872	16663	6189	6825	8866	20414	112074
1952	21152	10929	27362	79618	71081	12080	4243	5214	5718	5811	10175	13589	266972
1953	13466	8997	7194	6010	4778	4082	8239	13097	4005	7133	9461	11006	97468
1954	14819	12441	16786	23445	9654	5457	7563	9838	8866	8608	9283	13159	139919
1955	11744	12107	10576	5933	5159	3963	10207	40275	4475	5436	10235	13282	133392
1956	14942	11389	7748	5754	4519	4421	7563	4034	3564	4144	6070	7563	81711
1957	11990	13718	9900	6129	15249	8628	4046	9039	3701	14573	20648	15434	133055
1958	9838	18883	41197	63551	69543	7200	6001	5442	22374	7563	10770	9715	272077
1959	10453	13385	9162	4397	4089	3630	3843	11806	4028	4661	12496	8670	90620
1960	11252	10066	9715	5778	4667	3326	3640	3511	5623	6210	12556	7994	84338
1961	7686	7220	7871	4433	3825	3850	8301	16725	21779	5516	7557	12728	107491
1962	10207	30490	16540	32787	8670	3481	3849	3345	7260	6456	6189	7440	136714
1963	8977	8942	6075	4255	3886	3112	3357	10945	13627	5399	9461	6825	84861
1964	6641	7535	6641	12615	10822	2785	3745	13896	3172	3283	6546	8731	86412
1965	8670	7831	7686	30407	23981	9164	3173	4765	6248	5798	20648	25887	154258
1966	12974	11330	14634	16840	6210	3356	3708	3074	4040	6395	8985	76676	168222
1967	12728	9386	10392	11425	19553	6903	4046	7502	13567	6825	9104	12913	124344
1968	12544	14726	12482	14757	16909	4748	5725	14511	3416	5909	7379	10330	123436
1969	47654	34100	39476	82414	83624	13686	5940	4243	8807	7686	11722	11990	351342
1970	12974	8664	12790	4028	4833	3785	6044	7440	4987	4710	10770	10822	91847
1971	10453	9275	8547	5106	8670	3749	3935	18754	4951	9346	9699	21029	113514
1972	10576	9031	5657	3838	3579	14995	4064	11252	23802	17463	12496	11621	128374
1973	11252	14273	33942	67003	116521	23504	4753	4808	3344	5214	10770	11068	306452
1974	14142	8997	9900	5516	4095	3743	4692	4907	7498	9162	11306	8977	92935
1975	8608	8942	12851	7200	14942	5248	8670	11437	3898	5811	6546	8362	102515
1976	9592	17199	6887	7736	9039	3808	4925	4630	6605	12851	6784	7671	97127
1977	8731	6609	5251	3975	6130	6070	7194	6764	4058	4403	6248	7748	73183
1978	15126	21549	105022	50401	29330	5058	4040	3935	3636	5848	12437	13958	269540

Virgin River at Littlefield, AZ – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	12298	17994	37078	75095	95861	23207	4237	7809	3921	5675	10175	11929	305279
1980	36770	134025	42735	56232	91372	27194	8670	6518	18982	14081	16185	16663	469427
1981	13958	13718	20537	24933	13097	6189	8178	9531	6784	11498	11187	12113	151723
1982	14327	13662	22136	21065	22013	5724	5884	14327	11246	12052	17494	30990	190920
1983	17929	19297	101139	67535	120040	66587	16381	23772	11316	19692	18746	23976	506430
1984	18024	14739	13837	16846	13803	5695	18135	18516	9358	11165	13254	17050	170422
1985	17680	15650	22190	36230	21180	5050	5630	4700	5390	7950	13320	16040	171010
1986	14530	17320	16530	14330	11260	5500	5210	6340	14980	16600	13730	10520	146850
1987	8680	8190	11060	20020	11840	6060	9340	8630	5300	11030	21050	12290	133490
1988	15120	14420	14350	31260	24700	8950	5170	20770	11070	7430	9350	13220	175810
1989	33200	12300	16210	5160	3660	3700	3790	7880	5440	7210	8060	9800	116410
1990	12140	7980	6190	4680	3070	3350	3600	5830	10180	5780	6090	7470	76360

Pumping from Lake Mead – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1932	0	0	0	60	61	60	61	61	60	61	60	61	545
1933	61	56	61	60	61	119	61	61	60	61	60	61	782
1934	61	56	61	60	123	119	123	123	60	61	60	61	968
1935	61	56	61	60	61	119	123	61	60	61	60	0	783
1936	61	56	61	60	61	60	123	61	60	61	60	0	724
1937	0	56	61	60	61	60	123	123	60	61	60	0	725
1938	0	0	0	60	61	119	123	123	60	61	60	61	728
1939	0	0	61	60	61	119	123	123	60	61	60	61	789
1940	0	56	61	60	61	119	184	184	119	61	60	61	1026
1941	0	0	0	60	61	119	184	123	119	123	119	61	969
1942	61	56	61	179	246	358	491	430	596	553	655	676	4362
1943	1045	1333	1721	1012	1353	1547	2091	2275	2023	1537	1429	1291	18657
1944	1291	945	1106	1309	1353	1429	1722	1660	1428	1107	655	491	14496
1945	553	500	553	655	922	1012	984	922	774	492	298	307	7972
1946	307	278	307	417	614	774	922	922	834	799	476	430	7080
1947	430	389	491	595	860	893	922	984	893	615	476	307	7855
1948	307	278	430	476	614	714	922	861	833	614	417	307	6773
1949	307	223	307	536	614	714	860	860	833	553	357	307	6471
1950	245	389	430	596	737	1012	922	1045	953	676	536	368	7909
1951	368	389	615	655	799	953	1168	1106	1072	860	595	491	9071
1952	553	555	615	715	984	1190	1414	1414	1131	984	834	737	11126
1953	799	777	984	1191	1045	1369	1660	1721	1310	983	833	861	13533
1954	922	889	1230	1547	1906	2023	2398	2337	2143	1968	1369	1291	20023
1955	1229	1111	1414	1548	1783	1964	2337	2152	2023	1968	1369	1414	20312
1956	1414	1333	1660	1667	2091	2618	2890	2890	2619	2090	1547	1414	24233
1957	1352	1388	1537	1667	1783	2261	2644	2398	1964	1291	1131	1045	20461
1958	983	1000	1229	1310	1599	2321	2890	2705	2321	1352	1250	1230	20190
1959	1168	1056	1291	1488	1599	1964	2521	2521	1786	1537	1071	983	18985
1960	983	834	1168	1310	1783	2559	3013	2951	1905	1537	1131	1106	20280
1961	1168	1111	1291	1488	1845	2380	3074	2829	2381	1598	1190	1106	21461
1962	1291	1277	1476	1607	2029	2618	3381	3136	2619	1783	1309	1291	23817
1963	1414	1333	1537	1667	2091	2619	3443	3197	2738	1845	1369	1353	24606
1964	1330	1179	1205	1599	2467	3254	3910	3517	2548	1738	1260	1290	25297
1965	1251	1227	1330	1378	1750	2068	3135	3696	3156	1465	1014	1218	22688
1966	1319	1086	1400	1664	2224	3174	3834	3844	3152	1904	1590	1435	26626
1967	1411	1330	1709	1714	2297	3072	4079	3667	2900	1902	1560	1493	27134
1968	1510	1603	1831	1978	2944	3762	4475	4395	4190	2990	2020	1862	33560
1969	1754	1554	1877	2192	2535	3922	4567	4648	4075	3604	3260	3359	37347
1970	2999	2883	3216	3367	3772	3780	5229	3214	3496	2975	1822	1507	38260
1971	1779	1975	2342	2323	3043	5503	7998	6827	6046	5206	4237	3259	50538
1972	3119	3154	6229	5825	8040	9437	10421	9591	8502	6461	4615	5591	80985
1973	5701	4551	5260	6927	7887	9738	11886	10902	9911	8710	7035	6049	94557
1974	6102	6196	7228	8042	10249	11190	11366	11536	9472	6925	5427	5042	98775
1975	6619	4950	7096	7136	9215	11881	12553	11944	10075	8745	8272	6490	104976
1976	6435	6152	6620	7695	10796	12574	12922	12421	10401	8232	7312	6724	108284
1977	6466	6240	7818	9231	9419	11627	13308	12574	10434	9522	7664	5066	109369
1978	5099	5191	6234	7766	10415	12750	13628	13259	11621	10961	8038	5741	110703
1979	5865	5643	6385	9520	11479	13264	15629	14715	14711	13746	10664	8845	130466
1980	7844	7206	7652	11171	13313	14234	15484	16127	13060	13260	10651	10373	140375
1981	10494	9608	10916	12656	14348	16454	17930	15627	15185	13245	12050	9917	158430
1982	10338	10055	11219	13110	14601	16311	17242	16718	14561	13197	11071	9643	158066
1983	9064	8963	10952	13274	16243	18589	19726	15762	15473	12795	10137	8971	159949
1984	10622	10272	12395	14471	19889	20043	18460	16289	15674	13624	10794	10907	173440
1985	11728	11331	13186	15305	16689	17766	18729	18712	15867	13398	10554	11339	174604
1986	12396	11121	15690	16902	19717	16932	21036	21775	17257	13458	12605	10942	189831
1987	12036	12313	14154	17411	19330	20643	23063	19875	21717	16038	11732	11553	199865
1988	11982	12659	17441	18295	22004	23211	27591	24487	21072	20333	16051	14716	229842
1989	14431	15254	20492	25275	25084	26189	30689	27489	24619	24412	18561	16766	269261
1990	17108	16232	22169	24752	27859	26644	31484	30105	26688	28884	23330	14722	289977

Pumping Returns to Lake Mead – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1968	51	45	50	48	49	46	49	49	50	52	50	52	593
1969	203	182	201	193	197	186	196	197	202	207	202	209	2376
1970	240	215	238	228	233	219	232	233	239	244	238	247	2806
1971	735	657	728	698	714	671	710	712	731	747	729	756	8588
1972	1961	1753	1944	1863	1905	1791	1895	1902	1953	1995	1945	2019	22926
1973	2508	2241	2486	2382	2436	2291	2423	2432	2497	2551	2487	2582	29317
1974	2678	2393	2654	2543	2601	2446	2588	2597	2666	2724	2656	2757	31303
1975	2928	2616	2901	2781	2844	2674	2829	2839	2915	2978	2904	3014	34223
1976	2831	3028	2500	2484	2341	1996	2016	2116	3026	3163	2909	2947	31357
1977	3142	2722	3108	2351	2550	2268	2224	2229	2754	2600	2820	3253	32021
1978	3802	3169	3534	2708	2628	2160	2138	2314	2690	3249	3198	3608	35198
1979	3741	2459	3040	4635	5781	6803	7892	7402	7724	6837	5296	4509	66119
1980	3968	3133	4182	3585	3497	3334	3516	3623	3616	3698	3547	3554	43253
1981	3846	3417	3820	3465	3616	3653	3684	3799	3605	3882	3773	3995	44555
1982	4265	4223	4746	4210	4202	3925	4015	4007	4003	4794	4650	4994	52034
1983	5627	5346	5766	6333	6085	5468	5662	5741	5755	6472	4804	5390	68449
1984	5726	4749	5455	5562	5919	5450	6026	5706	5629	5754	5553	6711	68240
1985	5148	4704	5488	5570	6104	5530	6399	5910	6323	3156	6040	6026	66398
1986	6060	5400	6240	6130	6460	6360	6740	7060	6320	7290	7140	6410	77610
1987	8310	7170	7970	7570	7510	7170	7240	7120	6990	7060	7010	7020	88140
1988	7780	7550	8610	8220	8070	7680	8380	8770	8090	8450	8170	8790	98560
1989	9550	9310	9590	9560	9050	8600	9450	9620	8810	9860	9430	10020	112850
1990	10210	8910	9560	9750	10040	8830	8990	9110	8750	10060	9490	8880	112580

Change in Lake Mead Storage in Acre--Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1935		107000	-27000	276000	657000	2686000	750000	-183000	-206000	-226000	-245000	4000	3673000
1936	-19000	17000	-53000	581000	2824000	1988000	328000	272000	10000	-140000	68000	-3000	5873000
1937	-85000	266000	339000	900000	2818000	1658000	611000	-319000	-185000	-92000	-68000	-24000	5819000
1938	-72000	-14000	519000	897000	2684000	3741000	1023000	-204000	243000	-307000	-357000	-7000	8146000
1939	-416000	-1003000	99000	587000	1722000	976000	-292000	-531000	213000	-380000	-402000	-405000	168000
1940	-393000	-115000	-172000	26000	1362000	912000	-318000	-495000	-225000	-80000	-390000	-350000	-238000
1941	-120000	50000	370000	720000	3530000	2150000	760000	-610000	-1020000	210000	-850000	-1420000	3770000
1942	-1550000	-1080000	-730000	1550000	1760000	2610000	10000	-430000	-800000	-850000	-740000	-800000	-1050000
1943	-750000	-450000	-350000	480000	1120000	1510000	320000	-280000	-570000	-820000	-750000	-830000	-1370000
1944	-980000	-860000	-730000	-40000	1930000	2960000	680000	-810000	-960000	-890000	-810000	-850000	-1360000
1945	-860000	-680000	-740000	-260000	1690000	1700000	830000	20000	-390000	-580000	-610000	-710000	-590000
1946	-730000	-710000	-510000	90000	840000	1090000	-80000	-260000	-440000	-463000	-272000	-371000	-1816000
1947	-697000	-517000	-307000	-100000	2026000	2214000	990000	396000	-284000	-19000	-351000	-610000	2741000
1948	-779000	-718000	-528000	524000	2205000	2218000	-257000	-470000	-838000	-660000	-655000	-779000	-737000
1949	-854000	-858000	-461000	137000	1993000	3270000	1067000	-491000	-884000	-766000	-562000	-882000	709000
1950	-947000	-685000	-582000	44000	761000	1906000	414000	-491000	-582000	-537000	-515000	-427000	-1641000
1951	-605000	-399000	-449000	-306000	543000	2048000	572000	-145000	-400000	-405000	-379000	-488000	-413000
1952	-471000	-801000	-883000	879000	3516000	3597000	263000	-596000	-807000	-939000	-892000	-932000	1934000
1953	-808000	-654000	-554000	-465000	-122000	2108000	93000	-306000	-688000	-553000	-341000	-490000	-2780000
1954	-489000	-357000	-453000	-412000	53000	94000	-386000	-568000	-555000	-250000	-314000	-425000	-4250000
1955	-445000	-436000	-305000	-285000	568000	952000	-219000	-83000	-407000	-317000	-229000	-150000	-1356000
1956	-163000	-193000	-311000	21000	1295000	1821000	-206000	-392000	-481000	-358000	-277000	-199000	557000
1957	-183000	-68000	-192000	-113000	1738000	4444000	3094000	827000	24000	-3000	-119000	-588000	8891000
1958	-829000	-301000	-608000	119000	2705000	2832000	-302000	-644000	-488000	-441000	-399000	-513000	1131000
1959	-471000	-312000	-451000	-487000	-30000	943000	-75000	-474000	-580000	-225000	-63000	-195000	-2420000
1960	-270980	-161005	59029	704063	659956	1138093	-319986	-797998	-626052	-236977	-126032	-289000	-266889
1961	-300002	-232982	-544973	-310021	103977	804032	-427960	-422979	-36001	166019	7974	-67945	-1260861
1962	-126974	348001	-216009	1333091	2569912	1765156	846943	-455999	-466995	-141977	-228023	-271964	4955162
1963	-300986	-181998	-630011	-805043	-860962	-663064	-843007	-759998	-562025	-467989	-390055	-507588	-6972726
1964	-566002	-360000	-473953	-45997	-422979	-693055	-843007	-501008	-473065	-308980	-100980	-84977	-4874003
1965	145974	72977	-204019	578032	1491957	1580155	-137980	2029	45997	115967	216003	193012	4100104
1966	269258	86973	-87000	-9997	99980	-39987	-257022	-225970	-64979	87990	139004	249951	248201
1967	148003	-11996	-178993	6962	-23981	-111036	-162022	-37016	178991	-155996	-96993	216009	-228068
1968	227999	48000	26010	140015	106990	109013	56016	12974	-47009	106990	167031	63026	1017055
1969	86022	22998	-77967	90031	49990	57006	163990	215025	168994	40029	275032	314022	1405167
1970	129987	-36988	-259777	-28979	7994	-16007	-22013	90019	141027	-91987	-2023	136013	51066
1971	-10023	-277968	-234000	37000	48023	88008	152983	183974	86996	90019	281994	386947	833953
1972	255977	-160000	-566985	-158997	-45010	28979	27977	166019	258014	367947	269022	556963	999906
1973	554904	252976	526956	986057	-29023	55994	-197009	-350976	-269022	-105022	-100980	-232980	1091905
1974	422979	-271970	-405947	-460033	-210967	-9997	286967	182006	88008	-19984	237008	145974	-15956
1975	254009	-46985	-163990	-381011	-67022	105026	321954	155996	255038	41997	-101992	-2029	370991
1976	172967	263000	-220990	-208029	94016	-28979	-82026	-263970	203983	406992	510017	263970	1110951
1977	714927	-145010	-412957	-805043	-567969	-348997	-106006	263970	409037	-15987	-141027	201990	-953072
1978	709000	210000	112000	-315000	-212000	24000	-195000	58000	228000	172000	280000	639000	1710000
1979	787000	550000	-230000	-149000	-355000	-293000	-91000	121000	-58000	-26000	217000	190000	663000
1980	147000	750000	-185000	-137000	-292000	341000	350000	-11000	51000	-252000	69000	-118000	713000
1981	103000	108000	-318000	-538000	-318000	-358000	-115000	-14000	-16000	203000	186000	409000	-668000
1982	415000	181000	-200000	-393000	-197000	-73000	9000	130000	226000	304000	543000	538000	1483000
1983	-230000	514000	203000	-50000	163000	1230000	821000	-521000	-623000	-448000	-299000	-160000	600000
1984	-381000	-324000	-242000	-20000	574000	368000	115000	-232000	-203000	-216000	-51000	-58000	-670000
1985	-143000	-40000	-37000	-40000	550000	674000	-46000	-178000	54000	-302000	-363000	-489000	-360000
1986	-574000	166000	-40000	343000	504000	296000	-449000	57000	196000	-19000	161000	94000	735000
1987	-24000	53000	-304000	-135000	-251000	91000	180000	264000	35000	-166000	205000	149000	97000
1988	21000	81000	-146000	-359000	-319000	-451000	-256000	-270000	-59000	-2000	45000	42000	-1673000
1989	240000	159000	-322000	-423000	-675000	-306000	-95000	-44000	114000	-93000	-74000	108000	-1411000
1990	167000	105000	-305000	-368000	-402000	-251000	-341000	-88000	158000	-148000	-47000	-85000	-1605000

Change in Lake Mead Bank Storage in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935		6955	-1755	17940	42705	174590	48750	-6695	-13390	-14690	-15925	260	238745
1936	-1235	1105	-3445	37765	183560	129220	21320	17680	650	-9100	4420	-195	381745
1937	-5525	17290	22035	58500	183170	107770	39715	-20735	-12025	-5980	-4420	-1560	378235
1938	-4680	-910	33735	58305	174460	243165	66495	-13260	15795	-19955	-23205	-455	529490
1939	-27040	-65195	6435	38155	111930	63440	-18980	-34515	13845	-24700	-26130	-26325	10920
1940	-25545	-7475	-11180	1690	88530	59280	-20670	-32175	-14625	-5200	-25350	-22750	-15470
1941	-7800	3250	24050	46800	229450	139750	49400	-39650	-66300	13650	-55250	-92300	245050
1942	-100750	-70200	-47450	100750	114400	169650	650	-27950	-52000	-55250	-48100	-52000	-68250
1943	-48750	-29250	-22750	31200	72800	98150	20800	-18200	-37050	-53300	-48750	-53950	-89050
1944	-63700	-55900	-47450	-2600	125450	192400	44200	-52650	-62400	-57850	-52650	-55250	-88400
1945	-55900	-44200	-48100	-16900	109850	110500	53950	1300	-25350	-37700	-39650	-46150	-38350
1946	-47450	-46150	-33150	5850	54600	70850	-5200	-16900	-28600	-30095	-17680	-24115	-118040
1947	-45305	-33605	-19955	-6500	131690	143910	64350	25740	-18460	-1235	-22815	-39650	178165
1948	-50635	-46670	-34320	34060	143325	144170	-16705	-30550	-54470	-42900	-42575	-50635	-47905
1949	-55510	-55770	-29965	8905	129545	212550	69355	-31915	-57460	-49790	-36530	-57330	46085
1950	-61555	-44525	-37830	2860	49465	123890	26910	-31915	-37830	-34905	-33475	-27755	-106665
1951	-39325	-25935	-29185	-19890	35295	133120	37180	-9425	-26000	-26325	-24635	-31720	-26845
1952	-30615	-52065	-57395	57135	228540	233805	17095	-38740	-52455	-61035	-57960	-60580	125710
1953	-52520	-42510	-36010	-30225	-7930	137020	6045	-19890	-44720	-35945	-22165	-31850	-180700
1954	-31785	-23205	-29445	-26780	3445	-6110	-25090	-36920	-36075	-16250	-20410	-27625	-276250
1955	-28925	-28340	-19825	-18525	36920	61880	-14235	-5395	-26455	-20605	-14885	-9750	-88140
1956	-10595	-12545	-20215	1365	84175	118365	-13390	-25480	-31265	-23270	-18005	-12935	36205
1957	-11895	-4420	-12480	-7345	112970	288860	201110	53755	1560	-195	-7735	-36270	577915
1958	-53885	-19565	-39520	7735	175825	184080	-19630	-41860	-31720	-28665	-25935	-33345	73515
1959	-30615	-20280	-29315	-31655	-1950	61295	-4875	-30810	-37700	-14625	-4095	-12675	-157300
1960	-17614	-10465	3837	45764	42897	73976	-20799	-51870	-40693	-15404	-8192	-18785	-17348
1961	-19500	-15144	-35423	-20151	6759	52262	-27817	-27494	-2340	10791	518	-4416	-81955
1962	-8253	22620	-14041	86651	167044	114735	55051	-29640	-30355	-9229	-14821	-17678	322084
1963	-19564	-11830	-40951	-52328	-55963	-43099	-54795	-49400	-36532	-30419	-25354	-32993	-453228
1964	-36790	-23400	-30807	-2990	-27494	-45049	-54795	-32566	-30749	-20084	-6564	-5524	-316812
1965	9488	4744	-13261	37572	96977	102710	-8969	132	2990	7538	14040	12546	266507
1966	17502	5653	-5655	-650	6499	-2599	-16706	-14688	-4224	5719	9035	16247	16133
1967	9620	-780	-11635	453	-1559	-7217	-10531	-2406	11634	-10140	-6305	14041	-14825
1968	14820	3120	1691	9101	6954	7086	3641	843	-3056	6954	10857	4097	66108
1969	5591	1495	-5068	5852	3249	3705	10659	13977	10985	2602	17877	20411	91335
1970	8449	-2404	-16639	-1884	520	-1040	-1431	5851	9167	-5979	-131	8841	3320
1971	-651	-18068	-15210	2405	3121	5721	9944	11958	5655	5851	18330	25152	54208
1972	16639	-10400	-36854	-10335	-2926	1884	1819	10791	16771	23917	17486	36203	64995
1973	36071	16443	34252	64094	-1886	3640	-12806	-22813	-17486	-6826	-6564	-15144	70975
1974	27494	-17678	-26387	-29902	-13713	-650	18653	11830	5721	-1299	15406	9488	-1037
1975	16511	-3054	-10659	-24766	-4356	6827	20927	10140	16577	2730	-6629	-132	24116
1976	11243	17095	-14364	-13522	6111	-1884	-5332	-17158	13259	26454	33151	17158	72211
1977	46470	-9426	-26842	-52328	-36918	-22685	-6890	17158	26587	-1039	-9167	13129	-61951
1978	46085	13650	7280	-20475	-13780	1560	-12675	3770	14820	11190	18200	41535	111150
1979	51155	35750	-14950	-9685	-23075	-19045	-5915	7865	-3770	-1690	14105	12350	43095
1980	9555	48750	-12025	-8905	-18980	22165	22750	-715	3315	-16380	4485	-7670	46345
1981	6695	7020	-20670	-34970	-20670	-23270	-7475	-910	-1040	13195	12090	26585	-43420
1982	26975	11765	-13000	-25545	-12805	-4745	585	8450	14690	19760	35295	34970	96395
1983	-14950	33410	13195	-3250	10595	79950	53365	-33865	-40495	-29120	-19435	-10400	39000
1984	-24765	-21060	-15730	-1300	37310	23920	7475	-15080	-13195	-14040	-3315	-3770	-43550
1985	-9295	-2600	-2405	-2600	35750	43810	-2990	-11570	3510	-19630	-23595	-31785	-23400
1986	-37310	10790	-2600	22295	32760	19240	-29185	3705	12740	-1235	10465	6110	47775
1987	-1560	3445	-19760	-8775	-16315	5915	11700	17160	2275	-10790	13325	9685	6305
1988	1365	5265	-9490	-23335	-20735	-29315	-16640	-17550	-3835	-130	2925	2730	-108745
1989	15600	10335	-20930	-27495	-43875	-19890	-6175	-2860	7410	-6045	-4810	7020	-91715
1990	10855	6825	-19825	-23920	-26130	-16315	-22165	-5720	10270	-9620	-3055	-5525	-104325

Evaporation from Lake Mead in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935		9531	10610	14150	18814	33377	44964	47311	38192	27201	26598	22884	293632
1936	18685	17159	19130	25243	27983	40367	51734	56076	46213	33328	33494	28891	398303
1937	23491	21953	25206	33444	45265	59477	76601	80135	65397	47431	47271	40735	566406
1938	33210	30421	34991	45424	59188	83508	108493	114408	95067	68482	67568	58279	799039
1939	46928	41343	46539	59227	72816	90977	112593	117422	97433	70033	69014	58650	882975
1940	47275	43144	48052	59801	72519	90431	111802	116721	95342	69250	68257	58115	880709
1941	48362.1	44413.6	50468.9	64258.5	81833.8	104064.6	130080.8	138210.9	111535.7	81667.1	80013.6	66580.1	1001490
1942	52156.5	46272.5	50667.0	66134.7	80092.8	103182.6	129008.2	135694.0	109606.6	78164.5	76651.1	64673.9	992364
1943	51773.0	46819.3	51929.9	65521.9	78013.5	98139.2	123679.3	130475.1	105866.9	75409.8	73801.7	62100.6	963530
1944	49227.6	43723.4	47648.2	59143.3	73243.1	96477.2	122768.6	127682.2	102361.8	72643.9	70837.8	59348.4	925185
1945	47006.6	41931.0	45502.0	55885.2	69231.1	88894.5	114020.2	121219.8	98643.8	70601.8	69091.2	58054.4	880082
1946	46155.5	41049.8	44951.1	56123.2	67149.2	84668.2	105513.1	110987.8	89819.4	64204.4	63426.2	53794.0	827842
1947	42552.4	37982.5	41890.0	51794.2	66014.9	86994.4	112361.5	120849.0	98659.0	71837.9	71052.0	60070.7	862059
1948	47763.2	42578.8	46722.1	59342.8	74057.9	95472.0	118489.3	124225.0	99803.9	71247.6	69731.7	58469.8	907904
1949	46274.9	40893.5	44876.4	58154.9	70315.4	94325.2	121412.1	127302.3	102264.6	71252.1	69966.9	58452.2	903490
1950	46086.4	41027.5	44771.7	55779.0	66554.8	86599.0	109864.4	114692.2	92422.7	65942.8	64577.8	54681.0	842999
1951	43494.9	39100.0	42846.7	52411.1	62129.7	82388.8	105323.3	111281.8	90210.4	64650.1	63595.4	53647.7	811080
1952	42909.1	37749.0	40432.3	52608.6	70900.1	95777.1	120583.5	126036.0	101424.3	71833.4	69793.6	58187.3	888235
1953	46121.9	41120.3	44938.3	54622.5	62552.3	83027.7	104165.3	109339.2	87484.0	62138.6	61131.3	51466.3	808108
1954	41041.7	36891.1	40451.6	49292.2	56943.5	68442.1	84131.3	87393.1	70327.2	50689.8	49992.2	42265.3	677862
1955	33921.8	30491.7	33706.3	41338.2	48922.1	61604.4	76290.0	80768.1	65331.2	46915.7	46416.3	39760.6	605467
1956	32276.3	29307.3	32348.8	40260.6	49360.5	64640.7	80096.2	83658.9	67340.0	48313.6	47726.5	40808.1	616138
1957	33109.3	30254.6	33617.2	41569.9	51854.9	77038.3	109320.7	119328.3	98343.9	71643.9	71377.7	60491.4	797950
1958	48027.7	43527.5	47655.9	59529.8	75396.5	98542.1	122225.3	127661.3	103724.6	74631.5	73771.3	62678.8	937372
1959	50545.3	45880.0	50683.1	61914.4	71257.5	88908.6	110939.9	115925.5	93467.5	67523.8	67362.2	57682.9	882091
1960	46697.6	42532.8	47800.8	61072.3	72096.7	90361.6	111831.3	115709.8	93125.2	67241.5	66916.6	57083.8	872470
1961	46148.0	41901.6	45875.4	56223.4	65094.0	81441.1	99954.8	104168.2	85641.5	62878.5	62901.6	54098.0	806326
1962	44000.9	40986.6	45502.0	59859.8	75407.9	95817.0	122500.4	128167.2	104581.0	75896.1	75414.0	64654.6	933146
1963	52368.5	47749.8	52537.6	63728.7	71202.4	83853.6	101336.3	104071.0	83426.1	59363.4	58155.0	48801.5	826594
1964	38867.2	34985.5	38523.0	47806.0	54145.3	63488.8	76362.2	79349.9	63960.9	45920.3	45695.8	39260.2	628395
1965	32351.7	29760.4	33038.6	42224.1	52052.5	67137.4	83467.9	88691.7	73172.8	53554.4	54003.6	47018.7	656474
1966	38983.0	35885.2	40065.9	49787.4	57642.2	69471.3	85752.8	90085.8	74020.2	54114.0	54493.5	47597.2	697898
1967	39222.9	35933.6	39941.0	47747.0	54960.1	66071.7	82048.0	87044.0	72207.6	52275.7	52067.7	45319.7	674839
1968	37420.8	34367.9	38573.4	48221.0	55791.1	67654.8	84750.5	90066.7	74060.1	54204.4	54659.2	47304.2	687074
1969	38867.2	35668.3	39839.3	49748.6	57458.5	69575.4	87654.5	94078.8	78083.5	57067.8	57938.5	50830.4	716811
1970	41871.1	38308.3	42376.7	52603.0	60633.7	73155.4	91336.4	97512.8	80904.7	58660.0	58653.8	50966.2	746982
1971	41677.8	37645.9	41674.4	51917.1	59975.1	72770.3	91713.3	98395.7	81399.2	59580.8	60436.4	53137.5	750323
1972	44007.1	40036.3	43662.0	53846.9	61898.2	74856.2	93704.2	100400.4	83746.1	62103.5	62887.1	55619.4	776767
1973	46546.0	43094.4	49300.9	63516.3	73107.8	88453.8	109806.3	115214.6	93954.3	68186.6	67929.9	58092.1	877203
1974	48290.8	43819.3	48372.6	59052.8	67457.3	81424.4	102973.6	110205.8	91073.1	66301.1	66916.6	58056.6	843944
1975	47959.5	43885.4	48900.4	59906.8	68841.5	83472.7	105646.1	112914.8	93877.9	68502.9	68244.9	58873.6	861027
1976	48477.8	44864.6	49901.1	61565.6	71181.4	85863.0	107003.1	112569.6	93418.7	69088.7	70353.9	61198.7	875486
1977	51197.1	46723.3	51718.7	62599.2	70638.8	84177.8	104792.7	112475.6	94054.8	68485.2	68128.2	59218.1	874210
1978	49696.3	45849.4	51590.0	63516.3	72638.7	87789.2	108977.6	116029.1	96327.7	70604.3	71200.4	62654.1	896873
1979	52471.8	48859.0	54426.7	67378.4	76837.6	91986.2	114670.8	122278.2	100526.0	73183.5	73656.3	63901.6	940176
1980	52506.8	49163.7	54839.7	67917.1	77605.0	94623.9	119438.8	126865.2	104624.3	75696.6	75841.2	65216.6	964338
1981	53512.7	49200.5	54676.7	66938.6	76409.3	91285.2	113709.1	120764.4	99404.6	72870.3	73277.5	63985.4	936034
1982	52979.8	48813.8	54422.0	66899.7	76637.3	92344.2	115460.9	123147.2	102084.7	75027.0	76175.9	66687.2	950680
1983	54225.8	50387.9	56792.1	70515.8	81586.5	101564.3	129433.5	135858.1	110221.1	79421.8	78827.6	67732.2	1016567
1984	54875.9	49877.0	55555.1	69030.8	80764.3	98456.7	123431.9	130371.3	106803.0	77375.9	77272.1	66564.2	990378
1985	54250.8	49676.0	55641.4	69100.5	80791.6	99255.8	123926.2	131079.7	108096.1	78150.4	77416.5	65915.7	993301
1986	53076.0	48880.9	54744.4	68713.3	80262.2	97673.8	120652.0	128390.2	106285.8	77398.2	77724.6	67220.4	981022
1987	54964.3	50453.2	56122.2	69525.5	79559.3	96310.0	120977.9	129433.1	106689.2	77394.1	77809.6	67389.1	986628
1988	55166.4	50674.5	56603.8	69716.6	79637.5	94977.3	117869.8	124275.0	102170.3	74434.0	74530.7	64378.7	964435
1989	53035.4	48834.3	54256.3	66632.7	75238.2	90001.2	112168.7	119015.1	98362.3	71456.1	71290.2	61714.0	922004
1990	50756.2	46677.4	51842.3	63741.9	72412.1	86655.6	106971.3	113284.4	93843.2	67996.1	67876.4	58372.9	880430

Flow Gains from Grand Canyon to Hoover Dam

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1906	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1907	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1908	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1909	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1910	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1911	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1912	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1913	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1914	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1915	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1916	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1917	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1918	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1919	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1920	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1921	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1922	17317	22351	10894	10720	26144	66468	73213	30139	17761	6775	12607	20189	314579
1923	-41462	-35519	7952	-53969	13178	497428	217073	106055	28462	114292	125749	52262	1031501
1924	181200	20010	77492	72466	31109	82701	213756	72080	45790	22625	41899	86003	947161
1925	-2519	2069	-27847	7070	-83267	6950	139702	-37966	9288	43138	23285	1364	81267
1926	18219	-6067	-67208	-121795	-64926	209024	70234	23225	-64726	25092	-43692	-986	-23606
1927	3236	52865	-14441	-92224	-55437	-145541	210444	32450	-13005	91127	14536	3559	87569
1928	-17391	-18998	-136595	2967	-263600	159824	112570	36282	22231	-28340	-5847	31549	-105348
1929	5245	-5272	-73038	-68124	-351971	72978	-27171	257719	-52494	62349	10596	24389	-144794
1930	23677	-80132	-525	-168814	-5030	-52074	72990	87998	47744	35734	42682	37911	42161
1931	13631	21805	-11411	-25981	-45394	49839	72573	32325	-45080	52480	25626	9578	149991
1932	47726	40971	-23654	-8678	-243294	-33099	241006	-158417	207398	22042	14495	46817	153313
1933	11196	20692	20109	-6572	-142903	-32873	212919	70799	-11721	44908	13158	53962	253674
1934	36408	28337	37358	-16162	4710	82552	20758	-7981	26594	14191	6843	17093	250701
1935	23980	15909	21760	-23768	-107456	-122638	30602	-28812	-46169	1726	-4756	26099	-213523
1936	8841	11506	5972	-98316	2437	56721	33229	22265	-19957	-36329	-4468	-8984	-27083
1937	-1426	57155	37416	-66352	76294	2192	21736	-22561	-37729	-36302	-17115	-6223	7085
1938	-8544	904	66734	-16448	140028	5326	119880	-21379	-33075	-84462	-77829	3108	94243
1939	-1356	-75208	-57149	87309	89391	87341	21939	21790	293693	-21076	12493	10336	469503
1940	8237	20928	14227	3054	105431	122317	10391	3856	35481	14364	-11484	60075	386877
1941	61248	52401	96310	77963	169744	84247	115166	36424	-62529	19457	19973	12787	683190
1942	-37032	-4441	25405	205101	106949	197403	76269	29950	-14812	-29088	-12026	-14415	529263
1943	-1983	20203	35444	41416	129156	68044	112551	30944	42687	-34756	-31417	23924	436213
1944	-1803	20524	2034	64028	90781	192999	101962	17762	-42024	-15135	-19258	-2711	409159
1945	3198	19731	16169	-1917	110571	156338	123665	-68017	151955	-11164	-14071	-8872	477587
1946	-11879	-9656	-18589	-2680	85863	64118	67843	5211	4433	-27371	11290	28655	197239
1947	-33771	-9836	3930	3311	71115	126762	136097	66054	-4203	-21630	-39572	-30465	267792
1948	-50037	-54507	-46995	67695	162310	172257	-12194	16	-58899	-56440	-43147	-21559	58499
1949	-26746	-47247	32169	13846	232913	248998	146718	31091	-44982	-97003	-5216	-37194	447347
1950	-58159	13558	-12316	-14406	50982	148023	120477	15279	-51926	-21372	-32193	6056	164003
1951	-9988	-3011	-12051	-18440	-22176	151285	96143	15086	55277	-41832	3661	-10443	203511
1952	-2646	-9460	9760	85101	215288	144266	111312	-38427	1426	-34620	-71512	-9730	400759
1953	-7853	2513	17671	-7583	-62503	212313	113006	36474	29236	-56236	9535	-26498	260076
1954	9090	13796	29625	-2526	-5038	96999	26969	13673	-9599	27566	24056	22887	247498
1955	13412	-8760	19583	-5345	62021	157703	63923	75382	-13903	-4546	-16574	7107	350004
1956	29803	2089	-47071	21051	48765	202772	40376	-22603	-20172	-47613	-22706	5652	190343
1957	19482	45029	18091	-4690	156613	90735	156436	107393	22794	-31531	-8824	-4118	567410
1958	-13310	14536	46380	17510	103462	164841	9005	13613	-23261	-19217	36	-6576	307020
1959	685	23169	25444	33646	-24672	47225	82623	7717	-24253	-11358	26509	20208	206944
1960	28591	20245	-7945	64998	47732	104423	76017	-8047	9858	-15678	30460	13944	364597
1961	19515	11874	16046	40327	-30291	85344	43545	4611	-29818	3343	11770	47345	223612
1962	12935	47557	-11703	-116559	-23978	-76293	26683	-11788	143	-2569	-2363	30774	-127161
1963	24749	47194	45285	-3147	-14963	-7163	3893	31428	76468	7497	22805	10335	244392
1964	-15163	-17167	-54166	51473	83474	-32028	-390018	-200021	-8650	3323	7307	-2174	-42809
1965	62214	59612	27318	75998	208825	246355	26869	27680	7199	32102	69832	63119	907122
1966	38004	34349	584	4922	35928	18967	2766	-4075	52128	43721	78805	66694	372794
1967	36665	25654	-16716	15699	39834	14799	48492	13043	33604	-1955	2576	22423	234115
1968	6414	34414	5152	-10072	32744	9561	35504	11324	13413	4570	8516	-6187	145352
1969	5487	70193	16771	32489	65074	3707	39376	14001	29389	-43923	16930	-2100	247393
1970	4627	34796	3382	-29133	48178	14826	44709	67792	-19957	465	14229	-16408	167505
1971	38566	-33143	741	964	32222	12274	64919	91073	-23143	-22528	20866	-41201	141613
1972	34319	26864	-20696	-32054	-29598	3757	25276	33228	30662	41479	6520	-49411	70347
1973	-20442	14974	-14515	-244	96533	43963	57192	15822	21390	1308	35686	19298	270965
1974	47665	11228	40886	13959	-9787	23414	25303	27072	69265	44730	74442	49847	418024
1975	25243	38888	66355	18074	43618	11248	33919	52900	44453	13451	2955	29014	380117
1976	17331	39096	9158	23146	20692	18331	61289	8670	57940	26948	12818	-2843	292574
1977	39995	10324	-26331	6750	6975	-36258	706	28254	26675	63570	-8137	27490	140013
1978	95517	87690	114665	102863	104412	7012	42183	-15029	18356	51384	15305	44722	669081

Flow Gains from Grand Canyon to Hoover Dam

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	41135	80303	75684	41752	16884	-3545	21256	47120	35276	-41508	29445	85138	428939
1980	47903	149362	77416	38195	57689	35076	123481	-8604	8374	24770	52177	66822	672660
1981	57516	76775	40015	13058	49458	31468	18823	116760	66930	4083	60785	13769	549440
1982	29042	46919	30885	19998	55055	9360	42000	59528	64735	35677	81433	88327	562959
1983	64179	56856	52968	32679	49101	-81158	160292	160895	55045	76669	53823	81235	762585
1984	52908	50647	55127	79066	66059	54184	248140	166333	42634	53039	79009	80006	1026552
1985	51856	68053	57744	79005	11947	102252	77636	24612	42760	40912	33815	38404	628997
1986	11572	52072	32064	53450	-85981	43986	-38447	43470	3983	63731	47925	33342	261168
1987	31450	89851	24586	53872	15424	35138	34361	88718	39891	22352	41507	22617	499768
1988	36213	43429	-8305	39197	26036	-10557	20371	43272	31847	62657	8087	28015	320262
1989	43616	66613	-20682	28793	-49063	-5400	94743	46544	59141	36653	-9349	107680	399290
1990	77369	39644	24936	25344	-15469	40105	53700	78529	135771	11120	16671	39720	527442

APPENDIX 3B
SALT MODEL STATIONS
GRAND CANYON TO HOOVER DAM

Colorado River near Grand Canyon – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	535270	549849	748562	1010304	1575107	1546797	957338	857468	952822	818656	683617	559139	10794929
1906	600478	621710	860437	1184197	1887074	1858002	1105530	993629	1087633	968787	783071	630205	12580753
1907	662255	689789	966424	1348937	2182621	2152829	1245922	1122624	1183062	1111017	877291	697530	14240301
1908	492370	502572	674959	895902	1369866	1342057	859843	767888	845042	719886	618185	512385	9600955
1909	665686	693571	972312	1358089	2199040	2169208	1253722	1129791	1187442	1118918	882526	701271	14331576
1910	516394	529047	716176	959967	1484801	1456712	914440	818052	907265	775197	654827	538567	10271445
1911	583169	608327	1023968	1004957	1494327	1633937	1161251	717352	645290	1319582	667913	568864	11428937
1912	560040	530502	708147	846079	1677918	2291048	1379077	1006480	757086	852835	737962	528468	11875642
1913	565263	518865	696103	1303176	1490863	1323186	957478	674107	813156	874611	739733	550012	10506553
1914	573096	582943	932634	1178747	1999376	2338632	1348511	1019453	828126	1150708	730881	552631	13235738
1915	527287	578725	696304	1127843	1253927	1484712	989801	655882	656663	751401	641510	559812	9923867
1916	592570	598145	1275553	1291864	1679651	1801614	1152117	1354914	867889	1558470	706402	579112	13458301
1917	495802	547595	685063	1173605	1732649	2787604	1917319	1065787	857341	708034	670607	605070	13246476
1918	563323	563450	785764	838109	1324246	1962493	1029150	709259	793163	774830	770942	609783	10661512
1919	814158	519883	782820	1085168	1473543	1079440	760135	702463	621244	610733	638430	597141	9685158
1920	603463	727975	804164	885670	2425792	2519580	1270515	939572	700385	753973	785304	605593	13021986
1921	606820	622511	977866	849164	1822713	3007072	1203411	1379626	932333	674038	647206	640004	13362764
1922	558060	619187	1011890	989159	1984725	2103825	946350	823530	675212	540764	626058	605606	11484366
1923	573801	534640	658763	1047060	1696616	1942506	1240664	1245930	1214913	943811	893461	723587	12715752
1924	550093	638975	681108	1233383	1495252	1453980	785792	553963	467008	595128	613168	501313	9569163
1925	474880	576514	768906	1048920	1182090	1205520	941867	846770	1172192	1217446	779747	622634	10837486
1926	566709	560631	739762	1144650	1525920	1550795	1077863	697369	577214	629570	566891	595840	10235044
1927	559910	626095	752716	1027394	1663876	1599598	1348801	909436	1993251	896688	806658	640759	12825182
1928	648110	639255	807363	906552	1812851	1630552	1117629	746945	568876	717427	702809	562923	10861292
1929	551988	559810	890222	1179552	1673591	2039589	1263644	1235944	1159218	888242	699302	624141	12765243
1930	530126	637212	716087	1152173	1236956	1458124	978076	615928	667774	688973	615250	526767	10337046
1931	503843	575930	619075	694488	981999	1071923	651595	534913	517226	670431	579063	499098	7899584
1932	522501	768136	841394	1167136	1696932	1588080	1252588	895007	673943	555271	582789	517145	11060582
1933	506316	501489	667088	661818	1064939	1698009	988075	576724	597719	606534	524433	545181	8938325
1934	538121	529608	551529	619417	956539	676906	405505	420431	420792	424955	442831	477576	6644190
1935	509520	522179	571176	781758	1054980	1704693	1105419	697369	620512	576033	542295	510773	9196707
1936	502887	531946	651558	1037764	1378181	1384062	932364	877968	722823	560695	623303	544217	9947768
1937	458911	668187	828272	1121404	1548704	1323832	1056902	600465	619492	640606	583572	590431	10407778
1938	544175	557755	867299	1113381	1504511	2013563	1175248	675460	884310	704760	648547	606455	11295414
1939	559497	530145	826731	999887	1325093	1152680	629260	478242	705991	554815	539854	524465	8826660
1940	505319	527458	629028	760948	1234202	1106900	606930	485984	636172	795249	605219	590832	8484241
1941	623097	684000	964569	1015153	2446212	1867679	1072719	984761	877510	2032964	950365	732547	14251576
1942	600364	581214	809469	1591553	1505018	1364361	788989	535784	466658	561317	602595	559400	9966722
1943	538673	515059	695741	1049765	1319251	1458357	1072050	831381	591903	666742	682788	605528	10027238
1944	469282	523727	788536	1052150	1739902	1683849	967505	500513	404820	631189	653342	539644	9954459
1945	557059	558284	663942	774042	1499968	1338466	956168	1136682	530466	652733	678823	852733	10071913
1946	548287	469766	667092	957621	968315	1091444	623459	803118	631333	654015	676146	601866	8692462
1947	455417	519433	783899	709821	1435752	1550600	953081	1525849	789533	1064767	685786	633472	11107410
1948	556618	598576	819576	1315293	1503689	1308117	707821	760754	394303	591675	675226	475566	9707214
1949	542696	513063	895450	1194524	1431744	2083730	1211573	694611	537345	795912	659966	552499	11181193
1950	561851	566940	820744	996502	1167254	1394776	1048511	500147	531469	553459	572399	618392	9332444
1951	506058	511300	565904	622673	1026893	1295322	736660	914688	611846	653002	698080	535201	8677627
1952	716736	531321	598792	1832290	2570314	2327234	995977	948651	814333	590235	641732	637695	13205310
1953	608553	539463	655726	653060	857432	1373819	746187	899061	494031	601197	689291	564789	8682599
1954	533732	505229	575300	634940	825742	532611	621872	453176	668718	763589	520114	468640	7103663
1955	452019	416581	785499	719376	908408	855214	470672	897514	418248	429344	467908	510713	7331636
1956	545902	407095	632773	715463	1025753	1120969	470203	487121	282631	372180	537528	450303	7047921
1957	502458	508965	682234	773702	1408239	2254649	1626707	1550093	1013867	1149668	1281666	170288	13462736
1958	568503	684418	859138	1250891	1758839	1470515	603568	466623	499296	481814	509844	518241	9671690
1959	514633	447373	502810	527427	793098	966969	543117	688088	443789	771559	709473	539807	7448143
1960	510581	495915	934494	1052347	960022	1092988	581845	349978	419871	620451	593878	442793	8055163
1961	472001	507909	561246	641844	788601	828498	413652	623547	1004303	770113	621051	519157	7751922
1962	500577	879529	734652	1796473	1902114	1489032	1112431	529477	486876	838188	570034	505293	11344676
1963	324908	494042	278444	116064	133054	176062	135287	149475	170988	111401	110342	131171	2331438
1964	134331	353253	535422	998838	451787	131780	147404	380285	203084	237661	324477	389151	4287473
1965	382588	543134	595750	1238421	2144990	1916352	432972	447732	386635	362479	380928	406448	9435429
1966	413587	427386	579819	692843	781492	591876	525271	518340	465822	433518	450320	498687	6378961
1967	546233	489604	649675	804833	813782	660660	631624	652780	612874	404639	446279	544718	7257701
1968	658737	556845	915409	1095616	1004684	930375	781935	647505	540711	585545	560845	615184	8813591
1969	614082	520351	731378	942806	794572	925949	900411	867752	679583	548163	614981	676210	8716238
1970	691039	484645	514859	931340	902471	732296	710040	710035	644439	465399	398682	558792	7744037
1971	440531	384023	585074	864045	780001	695671	710114	748563	623074	541250	602623	744721	7719690
1972	658100	392447	334531	683544	754833	718719	691749	780619	721225	743016	611423	822826	7913032
1973	947548	680748	997853	1496439	659963	628281	541486	485414	379024	429044	373375	296318	7907487
1974	687214	277422	372514	427978	672272	761611	996004	990889	681161	495141	598229	473884	7404329
1975	647839	459175	446378	411904	735481	798613	985310	825632	795918	535432	371337	437203	7460444
1976	588489	622889	584589	569146	860228	618646	657015	592683	696616	680949	745301	687671	7904782
1977	834658	414785	418002	191778	197231	402386	734623	1009299	801326	376212	349373	683558	6392829
1978	781780	512800	596902	428342	508428	652704	601190	905358	843516	600926	611978	888031	7931755

Colorado River near Grand Canyon – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	890917	701758	274692	427959	513525	538187	726256	908942	602520	512957	653257	556794	7307764
1980	496527	665472	553070	759811	708447	1094433	1167897	1009364	798620	599922	714915	586959	9155437
1981	565470	486407	386911	389655	436815	418716	656821	703871	538469	520973	471462	678905	6254475
1982	709972	569869	465621	518101	507280	509656	642133	743217	527255	583301	715494	749539	7241438
1983	692304	674079	587851	741721	966955	2240627	2318382	1247167	1118558	1094295	961503	986418	13629860
1984	1040648	969657	1024673	1058195	1688457	1572029	1447189	1096487	1037405	863000	930000	959000	13686740
1985	997000	955000	880000	844000	1342000	1427000	1009000	951000	848000	482000	460000	439000	10634000
1986	629000	719000	1019000	1246000	1748000	1281000	833000	980000	1002000	722000	764000	931000	11874000
1987	976000	753000	598000	591000	563000	687000	741000	872000	658000	398000	530000	560000	7927000
1988	550000	546000	578000	522000	506000	461000	591000	633000	566000	413000	442000	487000	6295000
1989	569000	493000	437000	461000	472000	624000	685000	695000	623000	442000	452000	496000	6449000
1990	527827	428578	465061	464781	546572	632070	638907	748355	573516	358111	382273	434967	6201019

Colorado River below Hoover Dam – Salt Load in Tons

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	655367	785121	896331	1327442	1602957	1452937	1074496	1129932	1274827	1006258	850409	663572	12719649
1906	694771	995777	1039243	1587926	1839812	1669660	1304283	1382490	1547445	1130874	970549	710864	14873394
1907	732102	1195346	1174633	1834698	2064200	1874978	1521976	1621757	1805715	1248348	1084365	755667	16913785
1908	629443	646530	802310	1156072	1447132	1310355	923230	963774	1095473	924470	771368	632458	11302705
1909	734175	1206433	1182155	1848409	2076666	1886384	1534070	1635050	1820064	1254890	1090690	758157	17027143
1910	643960	724139	854961	1252040	1534394	1390201	1007978	1056822	1195912	970271	815631	649882	12096191
1911	684311	956544	1248141	1319433	1541627	1513621	1390685	870038	813919	1421051	831438	670043	13260851
1912	670335	728405	844705	1081440	1681015	1971235	1728447	1406326	964855	1034559	916057	643161	13670640
1913	673491	694291	829319	1766151	1538997	1297213	1074714	789824	1046764	1052591	918197	657498	12339050
1914	692315	1004069	1182179	1597456	1880358	2222456	1930143	1825675	1066398	1176271	938677	676359	16192356
1915	664907	1699824	926287	1627796	1612958	1357496	1265463	1014131	628754	879892	704245	627493	13009246
1916	768347	1545691	1647189	1754076	1883998	1515176	1447003	2245355	1124152	1585321	1000156	657491	17173955
1917	657707	613175	756390	1355556	1692478	1938536	3284443	1859835	965094	897712	758200	656060	15435186
1918	660779	462901	1036215	1022554	1345278	1549016	1667983	1015351	807376	904030	805423	665600	11942506
1919	567419	567775	781779	1404756	1494518	1170296	902383	925315	631434	782044	748102	764922	10740743
1920	791483	4108521	1158519	1339156	1707598	2483816	1661023	1527995	885230	937240	793147	745259	15780050
1921	666923	748694	1101189	1086104	1653278	2231096	1745123	2425915	1646082	937240	793147	745259	15780050
1922	690395	958442	1086538	1342436	1923198	2047496	1291563	1109291	910154	748105	687019	655330	13450167
1923	626091	500583	728817	1330956	1728878	1876616	1643043	1934255	1895322	1145005	1161922	760046	15332334
1924	710363	940509	804256	1703236	1562838	1417976	899483	539429	541788	766168	702877	622723	11229646
1925	574523	678524	830009	1362116	1280598	1219496	1113762	992009	1713336	1323556	911069	658953	12659631
1926	582978	544050	826077	1531630	1473120	1367520	948780	665009	447848	886239	559253	644770	10477274
1927	694600	762047	879780	1248480	1576450	1444840	1675060	1134690	3402360	1303590	1084590	609390	15817877
1928	691041	624500	849664	830660	1931040	1611710	733920	600695	650430	1205844	886650	607500	11223654
1929	590712	521950	1069800	1412860	1716480	1633700	1283440	2480840	1786900	1034280	733952	670888	14935802
1930	550405	564536	839430	2033600	1091880	1242710	666900	2824790	821032	1136384	760500	643926	13196093
1931	585390	577184	748828	737884	1067800	893040	475928	594617	512791	889050	735590	480361	8300263
1932	593157	1730736	1056398	1672950	2046060	1587080	1911420	1000616	1132800	658070	798380	640209	14827876
1933	629952	549762	516764	784800	1378850	1894560	1429020	693150	757712	844725	600964	702034	10782293
1934	642770	554424	629600	598128	833250	858568	349089	341347	411899	389983	441830	557440	6608328
1935	559979	331726	618613	501938	462756	568640	311744	246935	258684	394685	486373	336377	5077450
1936	352122	382920	589927	595765	483101	406773	388203	333202	294798	246814	235270	274439	4583334
1937	298454	322588	534977	584130	576647	619123	700581	659322	537166	481810	393464	360388	6068650
1938	350245	344150	449296	578772	557851	615070	624519	557990	484119	647284	603019	336101	6148426
1939	723233	1273174	623554	633230	603038	645358	705640	732160	624195	685028	720187	721228	8690115
1940	695440	477157	664452	660352	602458	609788	709346	707702	728018	817645	780669	811823	8264850
1941	628120	557867	607529	563782	1546373	1930231	1000448	1375837	1487442	1547505	1692503	1963541	14901178
1942	1968294	1522406	1402447	1287709	1345240	1559627	1266009	832710	988784	1105465	966408	973482	15218581
1943	955170	740581	888016	849638	957003	955997	1015409	969201	957318	1060738	1026099	1093592	11468762
1944	1162364	1210217	1244672	1125772	1169706	1037615	1034538	1108860	1009585	1102195	1097026	1119005	13421555
1945	1151274	1019560	1158485	958449	979958	928924	774266	767013	723462	937227	938456	944858	11281932
1946	981040	941217	906998	786082	812129	730724	740940	667600	674950	765673	681009	768156	9456518
1947	876836	802909	875381	785735	872202	841081	848601	791584	744487	713396	724272	950131	9824815
1948	1031801	997761	1008996	1054328	1010683	950001	999359	834486	826351	734837	887975	995196	11331774
1949	984178	988504	1085607	1003607	869628	841617	839565	856778	899453	906271	842408	1060879	11178495
1950	1053132	943661	1062816	922126	925981	777258	785093	720551	701905	744252	713842	729641	10080258
1951	787833	655445	768920	726213	806780	617453	701270	802693	747967	717992	713971	672435	8723442
1952	942685	1105681	1289197	1306223	1438469	1287570	1079114	1028183	996142	882080	819838	1205632	13380814
1953	1125172	946326	972968	897148	887532	717766	787518	839270	830235	687351	644466	693097	10028849
1954	730983	673834	885241	938547	1045116	881482	973529	844166	886133	737496	643966	714009	9954502
1955	712865	723095	984594	975359	1021740	771498	937766	888234	698779	584194	535516	535286	9368926
1956	637368	547945	862938	958862	853877	907086	907236	799398	705952	573980	612255	483123	8850020
1957	554263	503876	807529	965237	817162	866985	822661	816367	803204	699003	930597	980528	9567412
1958	1103834	748530	1231136	1226271	900900	667885	727354	738312	642228	593260	606391	714897	9900998
1959	657485	543609	717762	799291	809023	642700	706027	728277	626814	567043	493070	468752	7759653
1960	534033	445610	630703	830135	777236	913333	884923	862753	723530	502113	440895	518155	8063399
1961	543288	534559	877932	850044	876068	791533	774113	691144	648595	502194	480191	450674	8020335
1962	448700	470529	769816	883361	873494	785025	808268	839678	697471	634118	606669	594442	8411571
1963	470930	551552	820900	805253	838945	690027	818140	764173	640654	469540	410470	422283	7810867
1964	578078	540064	753863	822335	811655	690316	837114	702367	608498	588073	451160	481969	7865692
1965	508525	523039	838865	750632	940863	842748	872503	870991	694846	563002	439139	446830	8291983
1966	260208	455891	816110	880553	917833	797693	887132	818337	645959	437848	439207	415469	7772464
1967	471437	539463	775477	699955	814611	718127	759891	687177	446791	519997	508109	332024	7272999
1968	373923	468993	804480	839859	811565	720430	729547	668199	639897	471613	449208	544526	7522240
1969	551450	552545	836741	888389	831994	755255	776022	697553	620962	519912	425674	466577	7923074
1970	619632	547501	760728	925378	922571	790884	800010	668289	497350	588812	474436	514252	8109843
1971	572275	674344	872617	927062	879891	752803	744947	737201	635275	516147	464726	523741	8301029
1972	607510	654738	889608	856463	852358	783570	766375	745926	624886	487322	372543	358066	7979365
1973	951126	515854	853934	776033	911587	635789	760286	781397	603628	504342	479534	540292	7617782
1974	419671	553998	778261	882640	905568	821221	784841	873270	662851	559463	461045	389105	8091874
1975	474730	369893	694775	798452	897723	742004	766283	748545	624391	514016	445106	445106	7736456
1976	471960	457281	837293	805084	840675	656356	771404	813505	555135	324101	281213	443516	7265713
1977	229625	556160	772906	893623	688535	653527	812165	793513	419362	379852	417009	508757	7125034
1978	212976	395745	679760	832275	792004	605137	764993	827451	637268	457067	346778	341382	6892836

Colorado River below Hoover Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	203264	275241	579756	657735	948919	812859	801456	819216	656877	490453	509578	472411	7227765
1980	440761	250859	873914	1065839	1192680	999294	1119822	1122560	823572	924370	782884	828647	10425202
1981	577678	498744	754123	942408	793561	773023	800849	847822	610197	349940	357557	366301	7672203
1982	427414	507330	732462	963815	779819	587841	679377	705993	363365	361753	350140	427182	6886491
1983	1092203	338486	586940	981300	1125430	1744790	2375695	2201650	1937241	1851281	1535925	1476188	17247129
1984	1621324	1475407	1472002	1279657	1565488	1740727	1752282	1496205	1264022	1232000	1211800	1286000	17396014
1985	1393000	1251000	1069000	1000000	1094000	1287000	1325000	1269000	914000	747000	786000	873000	13008000
1986	1161000	736000	1140000	986000	1440000	1220000	1134000	991000	942000	829000	742000	1002000	12323000
1987	1144000	803000	800000	677000	698000	603000	599000	727000	626000	488000	389000	452000	8006000
1988	590000	533000	594000	726000	640000	664000	649000	734000	501000	372000	363000	414000	6780000
1989	363000	386000	664000	732000	851000	731000	669000	637000	492000	475000	444000	451000	6895000
1990	426826	368814	749629	726539	748598	767994	858207	799789	479120	422699	375106	504914	7228233

Virgin River at Littlefield, AZ – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	34204	37308	39594	39571	36641	21274	25157	41291	36238	31008	31191	34456	407933
1906	34204	37308	39594	39571	36641	21274	25157	41291	36238	31008	31191	34456	407933
1907	34204	37308	39594	39571	36641	21274	25157	41291	36238	31008	31191	34456	407933
1908	34204	37308	39594	39571	36641	21274	25157	41291	36238	31008	31191	34456	407933
1909	34204	37308	39594	39571	36641	21274	25157	41291	36238	40717	40990	40710	433695
1910	45324	35544	86750	57170	34030	19805	24009	65439	81222	36886	25365	29882	541426
1911	102947	41760	81868	79117	56994	34463	102513	34003	129408	41486	29116	28785	762460
1912	26496	23351	27302	27561	39688	26513	60604	49991	34071	100167	32488	29334	477566
1913	29007	26817	34799	42056	27651	25146	33413	54598	41799	32665	35365	32897	416213
1914	44640	42834	42557	70214	51725	37072	60604	29663	26343	26722	24366	23438	480178
1915	26382	30045	35670	48957	64649	44155	27074	32028	88180	38420	39864	40574	506998
1916	42015	35783	83176	74837	50837	39558	77776	118008	49268	63540	29865	27138	691801
1917	31061	32675	29831	41848	50171	40674	30549	20152	20749	29023	30239	30979	387951
1918	27068	21917	69751	37983	40631	22538	42613	32375	58034	42445	32364	34404	462123
1919	28663	25384	34973	40951	27873	20054	34231	37255	42572	34006	33865	36598	396425
1920	34255	38171	36107	41710	53167	30986	12110	50802	21602	37268	40490	44961	441629
1921	36994	29686	38895	39088	37026	17605	17773	73839	37935	48773	38614	81837	498065
1922	50459	49767	53016	58412	92050	62913	43839	115847	100286	106877	87613	86498	907577
1923	57646	56818	44649	54892	51891	26761	30348	32915	25825	29023	32739	29744	473251
1924	32544	20840	23093	27838	25821	15643	27892	19420	52366	25376	28990	30431	330254
1925	32885	29924	27651	30944	24823	25768	19226	70046	27889	18954	22227	25907	356244
1926	26723	19393	23294	59654	39633	19183	23088	22132	22684	23307	36615	31252	346958
1927	31517	37336	36019	43436	35694	20923	25645	52160	92303	62006	28366	26590	491995
1928	26267	37814	37414	35637	27097	14948	9780	10289	15289	17381	24366	23177	279459
1929	23792	23948	30616	33842	34308	17581	43635	79803	91527	18990	24475	25676	448193
1930	32780	33129	26187	22199	35367	17475	21161	178491	85919	44749	42226	32697	572380
1931	33755	37581	24022	19532	18671	12019	14164	29813	21340	19111	39800	30463	300271
1932	26472	131906	61088	55831	60030	39839	64469	204356	24337	31804	28452	37697	766481
1933	33311	30997	28892	22842	28136	17764	23540	15473	16821	19585	24669	31315	293345
1934	30921	25895	23279	17840	18124	12047	14719	12529	13961	18441	23215	32484	243455
1935	33489	31553	31936	45870	37950	19884	16052	41171	17899	15718	24087	29079	344688
1936	25432	37211	29163	30447	22067	13108	52255	39697	28735	34480	32138	30463	375196
1937	26495	57429	61088	56849	48151	21138	24174	13832	33735	20091	25833	36845	425660
1938	37739	38787	108636	65685	46687	17378	16003	37594	18460	23917	30586	34612	476084
1939	35349	30624	31663	28198	21852	12578	13196	11561	147498	27934	24767	26953	412175
1940	42166	72640	34709	27394	19700	11961	12657	22033	122308	28082	28742	32484	454876
1941	34847	55509	86785	85594	140477	38411	42354	41273	17474	46588	41520	39260	670092
1942	42002	34931	40767	73833	50271	15654	13970	23674	14268	25142	27566	29325	391403
1943	39522	42678	60486	57105	27575	13313	13772	29897	18428	24340	27186	32198	386500
1944	32302	33390	47966	46651	72585	25703	13313	13957	14682	16792	32053	29992	379386
1945	29010	38039	41027	39325	45994	14919	14786	48300	22578	42298	27627	34181	398084
1946	31922	25446	26345	27732	14789	13259	18134	30986	14022	64463	60122	46149	373369
1947	35205	29908	30946	34005	35244	13959	14928	31824	14687	23146	25636	33665	323153
1948	27731	29762	29941	39895	25260	13492	13975	16832	18516	18362	25492	26712	285970
1949	31435	33053	39799	57374	54212	27704	15041	13860	19478	23795	28115	32754	376620
1950	35398	36029	33215	35565	19430	13899	26921	16932	17174	16145	24149	27225	302082
1951	28645	21649	22680	19550	25527	13296	17296	29801	18010	20523	24961	42837	284775
1952	48426	29141	58550	131330	119721	29341	14314	16699	17355	18428	27018	33646	543969
1953	33341	24399	21198	18612	16115	14298	22229	28159	14113	21132	26920	30622	271138
1954	37766	32959	41003	55272	26749	16628	21455	25089	22752	24326	26627	35455	366081
1955	32540	32208	29766	18512	16616	13397	26049	76389	14779	17215	29986	38220	345677
1956	41502	33084	23594	18049	14619	14056	22383	13182	11801	13930	19014	22818	248032
1957	33022	36041	28227	18936	40192	23901	13656	23957	12652	35037	46860	38249	350730
1958	27051	44270	83079	122774	132567	20252	17075	16492	48283	21482	29818	27295	590438
1959	29101	36115	25768	13263	12484	11178	11789	31026	12247	14039	34741	25139	256890
1960	32167	28807	27978	17047	14009	10223	11146	10770	16413	18059	28116	21977	236712
1961	21409	19881	21688	14341	13141	13071	20993	33170	34683	16540	20328	29513	258758
1962	25340	48908	35222	56828	21827	11852	12830	11650	16857	18626	18066	20700	299206
1963	23429	22448	17892	13961	13205	11334	12066	24086	26335	16045	22841	19408	223050
1964	19073	20334	19000	28370	25586	10476	12529	26129	11438	11017	20667	25344	229963
1965	24570	22231	20705	44560	34603	19140	11055	16850	17539	19755	39990	44927	315925
1966	30927	28354	29013	28441	16766	11270	12006	10854	14144	20260	25413	143716	371164
1967	34135	25196	29671	29269	35719	18321	13569	23144	37522	22115	25423	33690	327774
1968	31912	32026	26890	29589	29982	14633	18411	43040	11765	20116	23334	29268	310966
1969	73297	55946	57068	66071	62247	25326	17383	13802	28738	23066	29132	29132	481208
1970	31243	22486	28800	13022	15215	12195	18684	21271	15840	16043	27433	25018	247272
1971	24132	21668	21357	15150	19086	11763	12500	49631	15904	28458	27232	41139	288020
1972	28148	24055	17216	12489	11635	48574	13139	24238	33045	46590	30226	31398	320773
1973	29526	32386	57932	81543	96987	35780	15653	16520	11119	16678	29312	28513	449949
1974	29748	23230	24368	16906	13482	12308	15492	16791	25381	23895	28308	24353	254461
1975	24094	23426	29387	18579	29637	15530	30508	27271	13151	19049	20112	18296	259142
1976	24922	37318	18533	19519	22249	12936	16564	15985	21666	38546	21115	21872	271225
1977	24092	18903	17281	13417	16898	20019	23430	21591	13612	14994	20100	23263	227600
1978	31754	40343	119154	54787	29850	12541	13640	13831	12588	16739	29226	30900	405353

Virgin River at Littlefield, AZ – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	29581	37120	51010	77161	70459	39189	14076	22732	13002	18364	28317	31643	432654
1980	51011	157112	68061	61496	71462	38144	22031	18366	57017	37288	39310	37175	658473
1981	34207	32032	40120	46048	33504	17769	25821	28553	20810	32823	28871	30515	371073
1982	34229	31721	40755	46073	39478	18072	21095	36970	33483	34792	37540	61280	435486
1983	38918	37721	115241	85489	79878	64476	42313	42343	26193	38714	37720	44281	653287
1984	37717	32540	33590	39663	30964	17300	50632	49657	27753	30080	34830	37617	422343
1985	39942	36000	44030	45000	50000	16000	17000	15301	17160	27000	34000	39000	380433
1986	36000	37000	38000	29000	27000	15000	14000	20000	35000	34000	33000	33000	351000
1987	26000	25000	31000	38000	18000	20000	31000	29000	18000	34000	45000	33000	348000
1988	34000	31000	32000	56000	51000	24000	16000	41000	28000	20000	24000	30000	387000
1989	47000	28000	34000	16000	13000	13000	13000	19000	16000	20000	24000	27000	270000
1990	30685	25752	26474	13991	13771	12963	12531	18440	28490	19355	19763	24767	246982

Change in Lake Mead Storage Salt Load in Tons

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1935		167305	-38557	319052	536165	1552805	331514	-40633	-89652	-147515	-208251	4488	2386721
1936	-22476	19998	-55865	588704	2438726	1324549	182933	147972	5304	-76167	44395	-2611	4595461
1937	-86693	274967	352679	948554	2970055	1747443	639848	-316716	-178614	-87582	-64733	-21541	6177665
1938	-64616	-13328	501167	896672	2701102	3689757	939447	-179037	211488	-256697	-288962	-5903	8131090
1939	-390242	-995806	98912	590978	1733015	995781	-297865	-541796	218623	-384862	-407146	-415975	203618
1940	-400799	-118064	-180102	27584	1426330	955026	-335025	-518399	-235683	-82147	-392374	-357109	-210763
1941	-127917	55773	407234	783378	3803593	2293390	799843	-587309	-962509	198094	-791896	-1346763	4524911
1942	-1517330	-1060728	-718294	1533724	1762248	2608012	9851	-422897	-771978	-808125	-653162	-673341	-712019
1943	-645820	-404899	-320323	445621	1041315	1387838	292928	-260380	-523711	-737914	-652849	-710727	-1088921
1944	-874679	-819840	-695057	-38473	1857092	2799069	633145	-741860	-856348	-800474	-749275	-793272	-1079971
1945	-799113	-630473	-685790	-239031	1550603	1056508	746528	17337	-324546	-503448	-549419	-631741	-492585
1946	-641711	-637993	-460677	81100	755761	974890	-70779	-231196	-391436	-413885	-243007	-331530	-1610461
1947	-621208	-468604	-280671	-91507	1857686	2026818	907838	362330	-250756	-16365	-288860	-545161	2591540
1948	-687273	-629643	-463327	459623	1951722	1958546	-222297	-405246	-705724	-529009	-565646	-689725	-527998
1949	-692507	-698595	-38579	116699	1688848	2791170	878170	-396154	-697036	-590171	-463378	-755956	792511
1950	-780913	-571100	-496533	37239	628991	1543477	330996	-405766	-496034	-471342	-450957	-366371	-1498313
1951	-513403	-345734	-401630	-278902	487653	1830409	512057	-128418	-352837	-360109	-330963	-426445	-308323
1952	-415235	-730401	-830197	829195	3300711	3234911	217718	-468770	-591228	-641446	-602139	-840190	2462928
1953	-741128	-593064	-515057	-429579	-108567	1846571	81694	-265353	-590358	-474059	-293576	-417481	-2499957
1954	-427762	-333443	-440363	-396722	50326	-89147	-365953	-540026	-527099	-237600	-299130	-409955	-4016475
1955	-437582	-447332	-331539	-315003	625883	1080817	-242555	-93451	-457805	-352007	-251635	-163064	-1385293
1956	-178172	-212078	-348890	23966	1477681	2106151	-238950	-450601	-556185	-419671	-306066	-210270	686914
1957	-189738	-72898	-209953	-122526	1847797	4651497	3236508	859145	24561	-3010	-115592	-506152	9399637
1958	-734919	-266545	-521573	99044	2184806	2310058	-245525	-521775	-395710	-359367	-324505	-420028	803961
1959	-389506	-261910	-391127	-424776	-25565	797582	-62404	-386381	-470331	-184275	-51379	-159794	-2009666
1960	-230282	-140175	52422	643232	599287	1024541	-287821	-717727	-562205	-213899	-113631	-261980	-208239
1961	-275971	-215830	-511243	-291364	96573	756379	-403281	-395539	-33828	154609	7410	-62950	-1175033
1962	-118290	329386	-208348	1305405	2531740	1733952	830827	-446704	-455008	-141878	-225704	-266736	4868641
1963	-293918	-174632	-593574	-749777	-792639	-606244	-759424	-678046	-497204	-416657	-344997	-453121	-6360234
1964	-517124	-333663	-446639	-44031	-406655	-665373	-814537	-481319	-462482	-309788	-102342	-87286	-4671440
1965	151702	76636	-217790	621094	1609951	1695392	-147766	2163	48784	122146	227076	203629	4393016
1966	277441	90143	-90495	-10411	103423	-40702	-256624	-220321	-62479	82507	129039	231955	233477
1967	139593	-11269	-163937	6319	-21971	-101980	-147990	-33687	161785	-140852	-88560	201695	-200856
1968	215396	45428	24624	133166	101811	104417	53990	12510	-45338	103769	164269	62105	976148
1969	86420	23028	-79119	89430	49846	57151	164781	216446	169733	39800	275016	323137	1415670
1970	133677	-37809	-258524	-29188	7959	-16228	-22219	88943	138347	-92850	-2135	140714	50688
1971	-10229	-282671	-237541	37553	49086	89430	154067	182895	88708	92433	289705	400231	853665
1972	273946	-164665	-557652	-155255	-43274	28541	27896	163740	254175	346622	252400	526008	952482
1973	526340	235726	479680	885040	-26172	52115	-181923	-320187	-247116	-94619	-91972	-220363	996548
1974	406723	-255937	-365700	-426747	-199039	-9328	265809	167740	81765	-18217	216856	133585	-2491
1975	233995	-43373	-152132	-349031	-62128	96581	297204	145077	238515	39323	-93437	-1868	348726
1976	160434	242691	-203464	-190431	85879	-26557	-75114	-240191	186022	375564	471217	240406	1026456
1977	655499	-132615	-373711	-728303	-514147	-316772	-96430	239056	365546	-14174	-127147	182612	-860585
1978	642865	193632	102838	-290811	-195327	22208	-179574	53791	211043	156588	258722	592964	1568938
1979	734918	519586	-215781	-139337	-333446	-275274	-85026	113209	-54214	-24045	203672	177629	621891
1980	137418	702652	-173898	-129289	-276286	322442	329414	-10341	47790	-236036	64567	-110432	668001
1981	96190	100494	-294347	-498862	-294409	-331485	-106605	-12973	-14741	187245	171418	377168	-620907
1982	383249	167416	-184972	-363328	-182234	-67587	8314	120082	208500	280155	501118	495581	1366295
1983	-213575	477106	188068	-46291	150876	1137738	757647	-473636	-551959	-393880	-262451	-139568	630075
1984	-327139	-270887	-201251	-16361	476082	308554	92234	-182203	-158228	-167622	-40013	-46107	-532942
1985	-113698	-31631	-28212	-30075	419011	520984	-35130	-134134	38559	-218176	-260327	-352225	-225053
1986	-411621	116915	-28253	240368	354202	208740	-312372	39612	136663	-13360	113020	66283	510198
1987	-16927	37365	-213896	-94407	-177003	64292	127567	187796	24785	-118105	145467	105396	72331
1988	14937	58075	-104828	-261549	-232079	-328108	-186239	-195251	-41662	-1416	31879	30182	-1216059
1989	171902	116019	-240234	-317543	-511054	-231415	-70499	-32179	86475	-70219	-55849	81903	-1072693
1990	131102	82764	-241229	-290331	-315811	-199551	-273503	-69001	122020	-113476	-35899	-65734	-1286651

Change in Lake Mead Bank Storage Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935		10875	-2506	20738	34851	100932	21548	-2641	-5827	-9588	-13536	292	155137
1936	-1461	1390	-3631	38266	158517	86096	11891	9618	345	-4951	2886	-170	298705
1937	-5635	17873	22924	61656	193054	113584	41590	-20587	-11610	-5693	-4208	-1400	401548
1938	-4200	-866	32576	58284	175572	239834	61064	-11637	13747	-16685	-18783	-384	528521
1939	-25366	-64727	6429	38414	112646	64726	-19361	-35217	14210	-25016	-26464	-27038	13235
1940	-26052	-7674	-11707	1793	92711	62877	-21777	-33696	-15319	-5340	-25504	-23212	-13700
1941	-8315	3625	26470	50920	247234	149070	51990	-38175	-62563	12876	-51473	-87540	294119
1942	-98626	-68947	-46689	99692	114546	169521	640	-27488	-50179	-52528	-42456	-43767	-46281
1943	-41978	-26318	-20821	28965	67685	90209	19040	-16925	-34041	-47964	-42435	-46197	-70780
1944	-56854	-53290	-45179	-2501	120711	181940	41154	-48221	-55663	-52031	-48703	-51563	-70198
1945	-51942	-40981	-44576	-15537	100789	101173	48524	1127	-21096	-32724	-35712	-41063	-32018
1946	-41711	-41470	-29944	5272	49124	63368	-4601	-15028	-25443	-26902	-15795	-21549	-104680
1947	-40379	-30459	-18244	-5948	120750	131743	59009	23551	-16299	-1064	-18776	-35435	168450
1948	-44673	-40927	-30116	29876	126862	127306	-14449	-26341	-45872	-34386	-36767	-44832	-34320
1949	-45078	-45409	-25193	7585	109775	181426	57081	-25750	-45307	-38361	-30120	-49137	51513
1950	-50759	-37122	-32275	2421	40884	100326	21515	-26375	-32242	-30637	-29312	-23814	-97390
1951	-33371	-22473	-26106	-18129	31697	118977	33284	-8347	-22934	-23407	-21513	-27719	-20041
1952	-26990	-47476	-53963	53898	214546	210269	14152	-30470	-38430	-41694	-39139	-54612	160090
1953	-48173	-38549	-33479	-27923	-7057	120027	5310	-17248	-38373	-30814	-19082	-27136	-162497
1954	-27805	-21674	-28624	-25787	3271	-5795	-23787	-35102	-34261	-15444	-19443	-26621	-261071
1955	-28443	-29077	-21551	-20475	40682	70253	-15766	-6074	-29757	-22880	-16356	-10599	-90044
1956	-11581	-13785	-22678	1558	96049	136900	-15532	-29289	-36152	-27279	-19894	-13668	44649
1957	-12333	-4738	-13647	-7964	120107	302347	210373	55844	1596	-196	-7514	-32900	610976
1958	-47770	-17325	-33902	6438	142012	150154	-15959	-33915	-25721	-23359	-21093	-27302	52257
1959	-25318	-17024	-25423	-27610	-1662	51843	-4056	-25115	-30572	-11978	-3327	-10387	-130628
1960	-14968	-9111	3407	41810	38954	66595	-18708	-46652	-36543	-13903	-7386	-17029	-13536
1961	-17938	-14029	-33231	-18939	6277	49165	-26213	-25710	-2199	10050	482	-4092	-76377
1962	-7689	21410	-13543	84851	164563	112707	54004	-29036	-29576	-9222	-14671	-17338	316462
1963	-19105	-11351	-38582	-48736	-51522	-39406	-49363	-44073	-32318	-27083	-22425	-29453	-413415
1964	-33613	-21688	-29032	-2862	-26433	-43262	-52945	-31286	-30061	-20136	-6652	-5674	-303644
1965	9861	4981	-14156	40371	104647	110200	-9605	141	3171	7940	14760	13236	285546
1966	18034	5859	-5882	-677	6722	-2646	-16681	-14321	-4061	5363	8388	15077	15176
1967	9074	-732	-10656	411	-1428	-6629	-9619	-2190	10516	-9155	-5756	13110	-13055
1968	14001	2953	1601	8656	6618	6787	3509	813	-2947	6745	10678	4037	63450
1969	5617	1497	-5143	5813	3240	3715	10711	14069	11033	2587	17876	21004	92019
1970	8689	-2458	-16804	-1897	517	-1055	-1444	5781	8993	-6035	-139	9146	3295
1971	-665	-18374	-15440	2441	3191	5813	10014	11888	5766	6008	18831	26015	55488
1972	17806	-10703	-36247	-10092	-2813	1855	1813	10643	16521	22530	16406	34191	61911
1973	34212	15322	31179	57528	-1701	3387	-11825	-20812	-16063	-6150	-5978	-14324	64776
1974	26437	-16636	-23770	-27739	-12938	-606	17278	10903	5315	-1184	14096	8683	-162
1975	15210	-2819	-9889	-22687	-4038	6278	19318	9430	15503	2556	-6073	-121	22667
1976	10428	15775	-13225	-12378	5582	-1726	-4882	-15612	12091	24412	30629	15626	66720
1977	42607	-8620	-24291	-47340	-33420	-20590	-6268	15539	23760	-921	-8265	11870	-55938
1978	41786	12586	6684	-18903	-12696	1444	-11672	3496	13718	10178	16817	38543	101961
1979	47770	33773	-14026	-9057	-21674	-17893	-5527	7359	-3524	-1563	13239	11546	40423
1980	8932	45672	-11303	-8404	-17959	20959	21412	-672	3106	-15342	4197	-7178	43420
1981	6252	6532	-19133	-32426	-19137	-21547	-6929	-843	-958	12171	11142	24516	-40359
1982	24911	10882	-12023	-23616	-11845	-4393	540	7805	13552	18210	32573	32213	88809
1983	-13882	31012	12224	-3009	9807	73953	49247	-30786	-35877	-25602	-17059	-9072	40955
1984	-21264	-17608	-13081	-1063	30945	20056	5995	-11843	-10285	-10895	-2601	-2997	-34641
1985	-7390	-2056	-1834	-1955	27236	33864	-2283	-8719	2506	-14181	-16921	-22895	-14628
1986	-26755	7599	-1836	15624	23023	13568	-20304	2575	8883	-868	7346	4308	33163
1987	-1100	2429	-13903	-6136	-11505	4179	8292	12207	1611	-7677	9455	6851	4701
1988	971	3775	-6814	-17001	-15085	-21327	-12106	-12691	-2708	-92	2072	1962	-79044
1989	11174	7541	-15615	-20640	-33219	-15042	-4582	-2092	5621	-4564	-3630	5324	-69725
1990	8522	5380	-15680	-18872	-20528	-12971	-17778	-4485	7931	-7376	-2333	-4273	-82462

Salt Load Gains – Grand Canyon to Hoover Dam

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1906	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1907	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1908	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1909	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1910	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1911	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1912	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1913	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1914	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1915	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1916	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1917	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1918	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1919	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1920	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1921	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1922	-74965	-60705	-76952	87850	482984	603085	158832	-55535	-63368	-102684	-99573	-86355	712613
1923	-4556	-90875	25405	229004	-19629	-92451	372031	655410	654584	172171	235722	6715	2143331
1924	127726	280694	100055	442015	41765	-51647	85799	-33964	22414	145664	78719	90979	1330229
1925	66758	71886	33452	282252	73685	-11792	152669	75273	513255	88956	109095	10412	1465901
1926	-10454	-35974	63021	325416	-92433	-202458	-152091	-54492	-152050	233362	-44253	17678	-104728
1927	103173	98616	91045	177650	-123120	-175681	300614	173094	1316806	346896	249566	-57959	2500700
1928	16664	-52569	4887	-111529	91092	-33790	-393489	-156539	66265	471036	159475	21400	82903
1929	14932	-61808	148962	199466	8581	-423470	-23839	-1165093	536155	127048	10175	21071	1722366
1930	-12501	-105805	97156	879228	-180443	-232889	-332337	1516771	67339	402662	103024	84462	2286667
1931	47792	-36327	105731	23864	67130	-190902	-189831	31691	-25775	199508	116727	-49200	100408
1932	43984	830694	153916	449983	289438	-40839	594363	-98747	434520	70995	187139	85367	3000813
1933	90325	17276	-179216	100140	285775	178787	417405	100953	143172	218606	51862	125538	1550623
1934	73728	-1079	54792	-39129	-141413	169615	-71135	-91613	-22854	-53393	-24216	47380	-99317
1935	15970	-43826	-25563	14100	-59158	497800	-456664	-534879	-475207	-354169	-301797	-198969	-1922087
1936	-200134	-164939	-150291	154523	1480097	420247	-401592	-426873	-451112	-429479	-372890	-303022	-845464
1937	-279281	-110188	21220	416087	2142900	1135180	300943	-292278	-272162	-284882	-289830	-289830	2181425
1938	-300485	-266587	7154	354661	188326	2513720	433779	-345738	-193416	-354765	-383859	-311253	3036538
1939	-287131	-348128	-129501	234536	1101754	540607	-254042	-334656	3539	-307599	-278044	-273204	-331867
1940	-278896	-248679	-191094	98613	867598	508029	-267043	-352409	-281465	-93172	-271171	-191815	-898729
1941	-166056	-122243	-10121	297333	3010511	2466601	737208	-175681	-432614	-321077	-142751	-242569	4798541
1942	-290028	-223414	-212772	1255739	1666745	2957145	473542	-177133	-314298	-341647	-359371	-332351	4102156
1943	-310823	-248373	-209555	217354	719178	962374	241555	-169882	-218765	-416223	-379159	-301059	-104677
1944	-270753	-220029	-332066	-14002	1335022	2309072	728020	-195691	-321927	-398291	-386347	-295466	1937541
1945	-285851	-282117	-267850	-109486	1085388	1233220	598365	-399605	-175404	-499976	-353126	-287227	287332
1946	-282591	-233458	-277060	-112899	633910	664279	23968	-412727	-387284	-393592	-314062	-232938	-1324454
1947	-275373	-245495	-240178	-55546	1379642	1435083	847439	-380208	-326789	-391946	-294786	-297602	1154242
1948	-284493	-301147	-333965	188639	1560318	1714244	40817	-374687	-338064	-438595	-415156	-241639	776272
1949	-328538	-301615	-310504	-124007	1182295	1702779	548202	-273597	-419713	-541968	-339160	-329467	464706
1950	-375789	-267530	-319950	-70281	409173	1012386	62172	-228669	-375015	-327331	-362975	-306161	-1149971
1951	-294094	-245710	-247400	-213040	273710	1258221	492655	-278561	-257661	-385109	-361546	-307887	-566424
1952	-264702	-232659	-252305	225695	2263692	2376175	300692	-436407	-465204	-409723	-490190	-360511	2254554
1953	-306024	-249149	-252491	-232016	-101639	1296247	106107	-370551	-306640	-439851	-384403	-346931	-1587342
1954	-296082	-219471	-200048	-174173	246222	237301	-59538	-209227	-366698	-303463	-221349	-226262	-1792788
1955	-237719	-202103	-183721	-98007	763082	1053957	182724	-185195	-221810	-237253	-230369	-187311	216276
1956	-139789	-118097	-164097	250873	1387235	2015112	160169	-180796	-180818	-259080	-270247	-213936	2285630
1957	-183288	-118767	-126832	42109	1336634	3542279	2629179	-157306	-197158	-489108	-521035	-307061	5764559
1958	-274409	-264029	-266556	-41912	1336312	1637330	-154773	-300494	-326782	-292762	-278868	-277969	495089
1959	-301073	-218813	-227367	-193785	-23785	513978	84661	-402332	-330125	-414808	-305650	-266375	-2085474
1960	-253964	-228399	-275939	445784	441445	901258	-14597	-262395	-311502	-364200	-302116	-225623	-450251
1961	-244031	-223090	-249476	-116443	177176	755507	-90026	-386822	-426418	-119800	-153296	-165038	-1241756
1962	-203396	-107112	-222249	420316	1645856	1130800	567838	-177189	-290846	-373796	-221806	-215625	1952792
1963	-190430	-150921	-107792	-123285	-151474	-133019	-138000	-131507	-86192	-101646	-90135	-110870	-1517270
1964	-128663	-188874	-276230	-251567	-98805	-160775	-190301	-216652	-98568	9471	-2978	-25486	-1626827
1965	62929	39292	-9536	129116	475867	712848	271106	411712	342627	310854	260057	212320	3219191
1966	111169	96153	110901	148182	229720	151199	76551	54501	99433	71940	100901	20322	1270992
1967	39735	12661	-78462	-127417	-58289	-69463	-42912	-24624	-31304	-56824	-57910	-31579	-526387
1968	-87329	-71497	-111595	-143524	-114872	-113374	-13300	-9023	39136	56466	39976	-33784	-562719
1969	-43891	772	-35966	-25245	28261	-35154	33720	46513	93407	-8930	74453	105376	233316
1970	39716	103	-58259	-50069	13361	29110	47623	31707	-15589	8463	46047	80302	172516
1971	96719	-32392	13205	87861	133080	140611	186414	133790	90771	44880	143406	164127	1202473
1972	213014	62867	-56039	-4917	19784	46674	91196	115452	141313	66869	-300	64040	759953
1973	134605	53768	10998	140619	126763	37230	9405	-61536	-47693	-42150	-21103	-19225	321669
1974	165869	-19227	-8091	-16730	7837	37367	56432	44235	43188	20968	65459	33126	430431
1975	52001	40800	56996	-4108	66229	30719	66908	50149	69340	1394	-45874	3747	388243
1976	29042	55540	17482	13620	57639	-3509	17829	-50966	34966	4582	16640	-9995	182882
1977	68981	-18761	-60379	-66814	-73360	-106240	-48386	17218	-6270	-26449	-87875	-3582	-413918
1978	84093	49020	73226	39432	45703	-36456	-41083	-34451	5924	6168	-18887	53957	226647

Salt Load Gains – Grand Canyon to Hoover Dam

<u>YEAR</u>	<u>IAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	65453	89723	24247	4221	9815	-57684	-29429	8109	-16383	-66476	44915	73149	149661
1980	39573	176600	67582	106839	118326	210117	280720	83817	18831	35782	97422	86903	1322713
1981	80444	87331	13613	-24583	9697	-16494	4672	101582	35218	-4440	39784	58563	385389
1982	91373	84038	29091	12697	38982	-11867	25006	53694	24679	42025	130796	144157	664671
1983	133523	134803	84141	104790	239280	651378	821894	407718	204654	298790	257191	296849	3635011
1984	194556	184716	199406	164275	353094	480008	352690	156015	30351	160402	203557	240279	2719348
1985	234970	226313	114924	78970	148247	398848	261587	159846	89965	5643	14752	19880	1753885
1986	57624	104314	52911	-33008	42225	146308	-45676	33187	50546	58772	65366	108591	641361
1987	123972	64794	-56799	-52543	-71509	-35529	-37141	26003	-23604	-69781	-31078	-28753	-191968
1988	21908	17850	-127642	-130550	-164164	-170435	-156345	-147943	-137370	-62508	-69048	-70856	-1197103
1989	-69924	-11440	-62849	-83183	-178273	-152457	-104082	-111271	-54904	-61784	-91479	15227	-966418
1990	7937	2628	1185	-61436	-148084	-89562	-84512	-40493	7065	-75619	-65163	-24825	-570881

APPENDIX 4A

FLOW MODEL STATIONS

HOOVER DAM TO DAVIS DAM

Colorado River Below Hoover Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	449624	487947	717881	1292715	3183283	3387669	1573746	896719	883944	705107	590140	475173	14643948
1906	531717	580747	874527	1610378	4029192	4290685	1969931	1103734	1087390	858584	711494	564404	18213183
1907	609489	668663	1023708	1911320	4830680	5146175	2345264	1299854	1280129	1003984	826460	648938	21594564
1908	395616	426894	614561	1083727	2626764	2793579	1313098	760524	750088	604135	510301	416468	12295765
1909	613809	673547	1031974	1928040	4875101	5193702	2366816	1310750	1290837	1012061	832848	653635	21782420
1910	425861	461083	672420	1200761	2938415	3126269	1459061	836793	825052	660679	555011	449343	13610748
1911	509925	563464	1104486	1282947	2964205	3640821	2118900	683691	539983	1217198	570978	487383	15683721
1912	480809	462962	661149	992712	3462059	5547245	2701248	1123271	652696	740047	656452	436663	17917313
1913	487383	447934	644242	1827725	2954853	2738820	1574122	617942	713748	762309	658613	463713	13891404
1914	526600	584400	1032000	1622000	4174000	6594000	3049000	1467000	728400	915000	679300	499300	21871000
1915	469500	890900	750800	1659000	3219000	2990000	1903000	801800	401800	549100	442500	407100	14484500
1916	685000	823000	1543000	1813000	4187000	3647000	2216000	1811000	771500	1420000	741400	463700	20121600
1917	454500	412200	564100	1327000	3503000	5411000	5384000	1495000	652800	571100	497000	461000	20732700
1918	460900	346000	871600	920900	2263000	3788000	2597000	802800	535100	578900	544700	479000	14187900
1919	266400	392200	592000	1387000	2796000	2210000	1277000	729000	403800	428300	486800	666400	11634900
1920	733200	1952900	1006000	1307000	3557000	7683000	2585000	1223000	593200	516500	688100	484200	22328200
1921	473700	471900	943000	998400	3363000	6630000	2730000	1959000	1161000	619900	532300	629300	20511500
1922	522600	564300	926900	1311000	4327000	5865000	1948000	879800	611800	386400	425100	460000	18227900
1923	390300	362600	533800	1297000	3633000	5153000	2554000	1556000	1347000	876400	904800	657200	19265100
1924	564200	556400	616700	1751000	3040000	3242000	1272000	412700	336900	408700	459300	398100	13058000
1925	281200	440900	645000	1335000	2032000	2415000	1633000	785200	1213000	1095000	650100	470900	12996300
1926	399300	362700	594300	1579000	3348000	3696000	1506000	610100	329300	500700	343100	427000	13696500
1927	377500	532900	682000	1224000	3845000	3524000	2746000	1041000	2181000	1079000	803400	499500	18535300
1928	490100	499600	663800	1013000	4023000	3931000	1668000	706700	401500	591100	591100	405000	14983900
1929	362400	365000	891500	1723000	3576000	4805000	2104000	2276000	1670000	1014000	601600	493300	19881800
1930	355100	415100	621800	1510000	2022000	3031000	1235000	1733000	603700	617600	507000	363800	13015100
1931	308100	424400	448400	554800	1124000	1464000	580400	365900	260300	592700	432700	294700	6850400
1932	363900	848400	865900	1761000	3789000	3607000	2331000	862600	755200	387100	420200	361700	16353000
1933	308800	310600	561700	532300	1265000	3947000	1401000	462100	411800	482700	330200	405800	10409900
1934	378100	355400	393500	439861	1110482	631348	171122	161776	197081	191168	209398	273255	4512491
1935	326258	212155	433186	434208	567047	983618	705273	625953	594395	604678	572200	299818	6358789
1936	297666	325514	559668	587969	559422	105021	690650	612487	555836	453662	360362	315313	5934470
1937	292624	312058	514228	554230	547125	587433	668995	664076	556372	506112	413322	401520	6018105
1938	390268	361497	465283	578984	554319	623612	680063	635791	556253	774140	745003	398568	6763781
1939	771066	1282372	624108	628968	599205	632538	691746	717571	608141	676374	711085	702199	8645373
1940	681907	464774	634561	622422	575286	582316	673299	675759	695018	796276	775945	795661	7973224
1941	589244	500120	551982	518170	1435142	1809547	950612	1428993	1576287	1640513	1816688	2070318	14887616
1942	2010674	1550066	1425303	1301374	1343524	1560816	1285110	846697	1024676	1162748	1094892	1156599	15762479
1943	1109253	823073	970289	915187	1029317	1040147	1109253	1042230	1041933	1178735	1178794	1271116	12715327
1944	1302326	1269500	1307246	1170463	1215628	1097272	1111097	1210709	1131785	1225466	1185935	1199026	14426453
1945	1238993	1099652	1250061	1042528	1068055	1014560	860839	884820	869368	1079738	1041933	1061906	12512453
1946	1118016	1047447	1004107	872343	902651	817004	837473	750775	758689	856335	762259	859609	10584908
1947	983816	885831	955331	858657	951227	818757	925402	865143	843186	828250	880079	1063136	10959015
1948	1169511	1137775	1149835	1202001	1141841	1075850	1153369	967829	981237	916794	1028246	1124010	13050298
1949	1214938	1214061	1291259	1178199	1026243	985998	1020094	1061906	1140711	1176275	1021701	1237764	13656149
1950	1277116	1131864	1245757	1089537	1120320	959816	981971	817507	823549	847926	815219	850386	12015368
1951	927861	756428	859609	796772	898347	690853	783363	906340	847946	755694	817599	828865	9869677
1952	1069285	1212553	1371194	1384681	1532293	1431690	1303556	1307246	1359689	1291259	1214497	1337375	15815318
1953	1226696	1043559	1046534	971122	997343	919384	896502	967829	967551	801810	748573	813493	11300396
1954	835629	721439	110645	974692	1100644	929468	1026858	887894	933038	775985	675977	740936	10513205
1955	724949	704777	905726	882459	927247	679547	846697	788897	621232	526096	487346	492400	8587373
1956	583095	498654	769221	840211	748315	784276	782134	695435	610521	489633	554111	457228	7812834
1957	534581	470818	738477	890195	768606	828310	786438	788823	784871	696665	958030	1080968	9322982
1958	1245142	845288	1435142	1473344	1115401	818789	894658	911260	792012	728024	745598	873137	11877795
1959	795046	647573	827635	916377	949382	759879	848541	893428	772970	692361	606961	572028	9282171
1960	628412	511826	710192	908641	855920	1014560	983816	959221	805698	556286	489012	571597	8995181
1961	590597	577040	935855	904476	943234	841401	821486	739092	690258	539254	516741	486436	8585870
1962	481639	497121	798121	902096	886664	799152	823946	857150	715845	634561	612902	606092	8615289
1963	482254	574818	871292	864608	911260	763449	908185	856335	724176	527387	464079	585063	8533106
1964	632717	582693	799965	859252	844237	718820	866373	731098	622422	586539	445157	469219	8158492
1965	489325	498065	785823	698589	871907	785466	814723	817182	655150	534520	417725	423533	7792008
1966	252533	439861	784593	845566	888779	783681	888509	839318	671811	466944	473124	447944	7781163
1967	499840	574263	846697	771185	889124	781896	831929	755079	494308	575840	556491	355588	7932250
1968	395801	495548	849771	883054	852845	752143	756923	692975	663481	486251	456760	552597	7838149
1969	548908	551714	824561	894360	834399	753333	772296	692975	618257	522898	425699	453416	7892816
1970	602526	535608	753234	918757	926632	780111	792587	676374	506983	583341	449560	497073	8022786
1971	560775	663124	859609	913402	860839	740837	739707	741551	623017	502668	452357	506358	8164244
1972	567662	636188	904496	877104	865758	795582	768606	756309	634323	517303	397077	379138	8099546
1973	581066	553603	610704	864608	1010871	683117	823331	856535	659315	559791	526500	571228	8300669
1974	436445	588703	863913	951485	959835	880079	847312	947338	713465	613655	503888	425193	8731511
1975	515335	617027	748930	871153	968444	806888	830095	804884	667644	548969	485858	500885	8366114
1976	508817	495548	909415	879484	929091	716440	842292	894043	608736	351222	304368	486989	7926545
1977	250443	608141	854075	987783	760613	720010	892813	876211	469256	428452	462532	562743	7873072
1978	234886	429198	740322	901501	859609	653960	836710	892198	688473	502054	375298	367886	7476095

Colorado River Below Hoover Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	217669	291352	617959	703349	1010256	865203	857765	875596	702754	530338	542924	505312	7720477
1980	471494	267763	929706	1129405	1260514	1056809	1189602	1194107	878889	986890	836640	885434	11087453
1981	618574	535997	814723	1016345	857150	834855	863913	914949	662291	379384	387973	397216	8283370
1982	462824	548493	791972	1042528	843007	634918	735402	764202	393864	392543	379404	463746	7453003
1983	1176198	364661	633540	1059927	1215867	1886280	2574346	2421817	2186577	2105652	1749817	1692297	19066979
1984	1888263	1764693	1770049	1564164	1887470	2076098	2184792	1905123	1621685	1587569	1543536	1617718	21411160
1985	1752000	1582000	1402000	1330000	1436000	1665000	1735000	1684000	1280000	1034000	1096000	1212000	17208000
1986	1619000	1045000	1614000	1407000	2049000	1730000	1630000	1426000	1351000	1179000	1057000	1421000	17528000
1987	1622000	1139000	1137000	968100	989800	853500	845200	1022000	884000	685900	548200	639000	11333700
1988	829500	743400	827300	996500	879700	912700	892100	1015000	709500	525300	512400	576100	9419500
1989	506800	529000	890000	975100	1124000	966600	901500	871000	648600	629100	588300	594700	9224700
1990	543700	467900	947800	920900	952900	966000	1070000	1020000	620400	551300	491100	652900	9204900

Colorado River Below Davis Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1917		262806	426982	1159827	2521203	3714394	2619383	757214	456424	377354	347712	348626	12991425
1918	339309	296743	630732	644006	1490310	2495906	1758052	612511	335252	385406	358982	333373	9680582
1919	225738	260114	458478	876307	1727996	1695812	951696	661288	256983	372195	358795	412080	8257482
1920	316029	634739	586025	860528	2968524	3544081	1564571	912248	361738	351719	321051	295428	12716681
1921	277107	320787	573376	650017	2453579	4599143	1739392	1386745	708625	363353	359496	420095	13851715
1922	426569	394961	745192	850135	2789320	3558482	1203533	590783	357317	237647	302403	338257	11794599
1923	283907	266939	352345	821895	2088784	3242276	1715849	1016315	879438	537060	558098	413545	12176451
1924	348389	335101	386608	1066908	1840453	2047082	795409	254955	209270	249945	287865	252011	8073996
1925	174268	275442	404241	816073	1233463	1518236	1027084	480594	741185	671557	403627	297407	8043177
1926	246939	225438	372645	963092	2027045	2337365	945985	374536	204649	306386	217360	269982	8491372
1927	233515	334212	427233	749199	2325844	2227413	1742774	635753	1329265	661288	496611	315228	11478335
1928	302817	303781	415925	621465	2433542	2487641	1050377	433066	248517	361888	367824	256294	9283127
1929	224211	226927	557585	1050127	2163546	3046417	1330391	1383614	1019320	621590	374161	311383	12309272
1930	219714	258924	389739	921253	1227077	1912084	771741	1054510	371306	378155	316780	230622	8051905
1931	190849	264860	281866	345057	685457	909994	350893	226627	162710	362853	271697	187518	4240381
1932	225187	522733	541693	1073044	2292099	2280761	1476159	527529	463299	236633	264121	229295	10133343
1933	191275	192164	352400	325985	770300	2498035	878211	284909	254779	299098	205839	253589	6506604
1934	235994	223709	246839	266976	686710	410929	100984	91667	122686	113144	127119	168445	2795202
1935	321350	211788	446980	412508	547449	960879	706824	579522	579952	579495	569977	286035	6200759
1936	295997	320706	579630	573310	563100	598325	693075	578393	547599	434305	346590	289779	5820609
1937	294159	301569	532804	534255	556406	588205	675570	635789	544563	481708	404864	380832	5930614
1938	381242	363483	488945	570503	567355	623829	693619	620086	555831	747384	747643	388057	6774977
1939	672242	1288687	685320	624507	599517	628922	683937	669121	618888	645399	701819	692660	8511019
1940	695730	471017	633189	632427	585423	573455	674383	651440	693821	782475	785740	802294	7999374
1941	608984	515181	607940	515070	1320536	1819794	977699	1359933	1519626	1641508	1864353	2171006	14921630
1942	1973516	1576981	1422780	1203098	1304868	1511589	1318495	818050	965489	1175711	1116052	1158561	15545190
1943	1084363	810503	955140	901775	1000567	993536	1069912	992505	1007329	1178857	1180589	1267543	12442619
1944	1268499	1201116	1269697	1163504	1160126	1088655	1071607	1153150	1101994	1192706	1188802	1234541	14096397
1945	1200224	1076704	1260810	1017139	1000757	962815	863836	825419	1009128	1037036	1107453	1105748	12184497
1946	1070773	1030977	1025107	855178	902726	810482	814191	727717	736156	821308	797675	858187	10450477
1947	986004	913138	996316	821438	977741	921568	898598	817298	806499	824088	901360	1087955	11006003
1948	1205816	1135569	1152503	1209984	1167728	1029988	1150693	970478	972922	949274	1003091	1151469	13099515
1949	1218394	1012352	1284246	1200843	1041538	957011	1013106	1011279	1107453	1211180	1037016	1293238	13587656
1950	1027000	1117000	1251000	1034000	1120000	945700	942000	829700	721000	708600	552200	587700	10835900
1951	587400	549000	794600	848100	728700	919000	1001000	904400	757100	797800	604400	764700	9256200
1952	1077000	1198000	1389000	1387000	1500000	1469000	1278000	1301000	1359000	1293000	1191000	1323000	15765000
1953	1228000	1076000	997900	893600	1010000	1002000	1117000	1083000	855100	673100	537500	684500	11157700
1954	846300	689500	822700	958000	1127000	959800	1073000	1048000	802100	677400	686500	718400	10408700
1955	770800	641900	839800	865000	883600	966500	1022000	828100	750500	551900	411900	304100	8836100
1956	354600	424500	762300	793800	763600	916800	918000	897300	661000	535800	382400	333000	7743100
1957	304500	427600	714500	830500	731800	891200	978000	872700	724600	586300	884500	1062000	9008200
1958	1290000	632000	1435000	1436000	1103000	943700	1029000	919500	768200	676300	698200	804400	11735300
1959	752400	618100	815200	960200	812100	920700	1048000	904700	773800	648000	468600	474000	9195800
1960	502600	551700	863800	893800	842200	1000000	1077000	912200	715400	587612	481038	335866	8763216
1961	489409	556352	929309	838624	884443	975684	965568	800501	734807	510454	384819	259422	8329392
1962	468761	418201	831781	908780	826524	893368	1000081	914195	720744	588187	513330	368891	8452843
1963	482923	547049	854214	822696	828964	975089	1028445	924113	703290	546355	432621	387854	8533613
1964	456423	586303	802465	794888	742285	830610	995638	874069	708724	507697	366828	355582	8021512
1965	393229	499663	804131	652750	804924	862327	1012061	981614	725584	520728	297942	180697	7735650
1966	209914	524775	780904	914552	878175	951683	1027255	965369	723382	478004	359133	350643	8163789
1967	427484	550877	849196	793995	824739	883253	936609	881765	599354	531439	349751	224255	7852717
1968	438373	557205	815972	860046	786854	879484	867980	835649	697200	508748	413044	432244	8092799
1969	345903	585866	851517	855087	781439	816607	893963	882062	602548	543697	326306	452362	7910357
1970	463703	571605	782213	953369	819820	859054	907848	754960	630555	558375	401480	420740	8123722
1971	448509	599553	922685	888072	781598	849335	999486	743991	651838	505118	417963	438810	8246958
1972	462552	611156	913005	905468	859113	850099	983419	817539	689306	317162	384859	475961	8269549
1973	488477	412330	709240	944543	828429	820177	957039	837989	756071	596577	421890	448410	8221172
1974	380217	584994	850445	1032412	875914	925898	982586	972312	772216	528900	339200	415100	8660194
1975	445900	525800	799500	927000	882600	779700	921100	887200	727400	531400	392100	420300	8240000
1976	423500	426700	953600	904900	830200	810900	888000	939000	454600	418500	287400	459700	7789000
1977	304200	626500	839800	967700	790000	914400	1092000	787800	548600	468400	407900	427300	8174600
1978	209300	474100	809000	960200	779400	887000	997900	883300	646600	400200	331100	325400	7723500
1979	178100	380300	623100	875400	916400	916400	1041000	922700	796800	573400	420000	394800	8040400
1980	360000	346000	982000	1246000	1052000	1239000	1220000	1230000	997700	930700	847000	799000	11249400
1981	512100	518400	821500	1008000	812300	975700	1051000	977900	629300	392800	313100	332400	8344500
1982	382100	573700	760000	1025000	776100	761100	912200	729400	526500	416500	250000	296355	7408955
1983	1127000	438700	579000	1161000	1248000	1741000	2670000	2494000	2355600	2280000	1714000	1562000	19376300
1984	1868000	1750000	1773000	1763000	1812000	2071000	2145000	1916000	1750000	1580000	1606000	1624000	21658000
1985	1542400	1554500	1408900	1300000	1542000	1643000	1725000	1733000	1434000	1137000	1078000	1273000	17366800
1986	1364000	1110000	1527000	1476000	1966000	1740000	1739000	1575000	1406000	1155000	1062000	1331000	17431000
1987	1411000	1166000	927100	1006000	927100	966000	1036000	1044000	840400	700500	423500	706800	11318300
1988	660000	623500	922700	921100	910400	988400	1149000	992000	719700	548400	485100	507800	9428100
1989	388700	563900	943600	1087000	926700	982800	1130000	1013000	766200	606800	426400	445800	9280900
1990	407200	573900	922700	983600	978900	1027000	1102000	962200	702800	597400	458800	464600	9180900

Lake Mead National Recreation Area Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1964	9	10	11	16	19	27	27	29	25	21	17	11	222
1965	8	9	9	9	17	24	27	25	26	22	19	6	201
1966	4	6	8	15	21	22	31	31	29	18	16	12	213
1967	10	9	12	17	20	25	32	31	26	23	17	11	233
1968	8	9	12	21	21	26	31	30	29	28	19	13	247
1969	9	5	6	18	22	20	26	24	23	20	16	12	201
1970	11	12	12	15	21	24	30	29	26	24	17	12	233
1971	11	10	11	15	20	23	28	29	27	24	21	17	236
1972	15	13	15	16	18	19	33	43	38	25	24	23	282
1973	23	22	21	21	21	38	42	41	40	30	17	13	329
1974	9	14	19	25	37	39	37	44	37	26	13	10	310
1975	10	12	11	22	33	37	42	39	29	23	20	13	291
1976	13	11	18	17	32	39	42	39	20	13	13	10	267
1977	8	11	12	19	16	28	40	35	31	24	16	11	251
1978	7	6	12	18	22	31	36	34	30	22	12	9	239
1979	7	8	9	19	27	34	34	33	25	17	15	10	238
1980	6	6	9	17	21	27	33	40	28	22	12	9	230
1981	9	6	11	22	23	37	41	37	28	24	19	16	273
1982	14	14	18	23	31	33	31	41	24	21	16	13	279
1983	16	14	13	19	28	30	30	21	24	22	17	15	249
1984	19	27	40	46	59	57	63	51	50	47	37	16	512
1985	11	12	21	31	39	57	56	52	34	24	22	21	380
1986	19	16	30	33	46	40	40	43	33	25	24	15	364
1987	16	16	19	31	41	48	47	50	42	33	15	11	369
1988	12	12	19	11	26	34	41	35	30	28	19	16	283
1989	15	13	20	26	32	12	47	46	37	22	17	14	301
1990	12	12	18	24	36	43	44	38	27	21	16	14	305

Davis Dam and Government Camp Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1972	5	7	16	26	22	30	33	31	23	15	6	5	219
1973	5	5	6	15	19	33	38	39	31	26	12	9	238
1974	5	6	10	14	24	35	34	29	24	16	10	6	213
1975	7	7	10	14	17	27	29	29	24	14	10	5	193
1976	6	5	8	12	37	35	34	34	21	10	7	9	218
1977	14	16	15	16	18	23	26	27	19	14	12	11	211
1978	4	4	6	11	20	41	40	41	27	18	8	4	224
1979	6	7	7	16	22	28	28	27	21	14	12	8	196
1980	7	7	10	19	23	29	35	43	31	24	13	10	251
1981	6	9	11	14	18	33	31	48	27	18	14	14	243
1982	6	5	7	17	22	35	34	29	27	13	7	6	208
1983	7	6	7	16	30	39	49	30	26	14	10	7	241
1984	2	4	6	6	7	7	9	6	4	4	3	2	60
1985	1	1	2	2	3	5	6	7	6	4	2	1	40
1986	1	1	2	2	3	5	6	7	6	4	2	1	40
1987	1	1	3	2	3	2	2	4	2	4	2	0	26
1988	4	4	6	5	9	11	14	18	13	17	12	9	122
1989	5	4	5	7	10	15	13	13	14	13	12	11	122
1990	9	7	12	13	19	20	33	26	20	20	15	9	203

Change in Lake Mohave Storage in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1950		14400	-13200	49600	-7700	10500	36300	29800	99300	130400	242000	233100	824500
1951	299000	165000	55000	-40000	170000	-209000	-200000	12000	92000	-33000	201000	54000	566000
1952	5000	6000	-21000	-1000	23000	-43000	22000	-3000	5000	2000	5000	14000	14000
1953	11000	-34000	53000	65000	-15000	-177000	-203000	-124000	96000	114000	191000	108000	85000
1954	-9000	34000	65000	14000	-16000	-45000	-47000	-170000	104000	80000	-12000	8000	6000
1955	-48000	58000	47000	7000	43000	-275000	-150000	-31000	-129000	-24000	69000	171000	-262000
1956	206000	64000	11000	52000	-3000	-124000	-133000	-197000	-53000	-52000	160000	104000	35000
1957	198000	16000	2000	45000	19000	-83000	-194000	-92000	44000	104000	64000	-2000	121000
1958	-53000	201000	-3000	42000	4000	-127000	-133000	-13000	10000	39000	32000	55000	54000
1959	29000	23000	2000	-52000	124000	-168000	-204000	-16000	-2900	42000	131000	99000	8000
1960	123000	-52000	-160000	-3000	-25000	-26000	-141000	17000	75000	-48000	-5000	208000	-37000
1961	76000	6000	-18000	50000	28000	-143000	-159000	-67000	-43000	29000	110000	193000	62000
1962	-1000	70000	-45000	-8000	42000	-117000	-183000	-72000	-20000	39000	99000	213000	17000
1963	-17000	17000	4000	31000	69000	-207000	-131000	-70000	11000	-29000	12000	164000	-146000
1964	143000	-22000	-10000	53000	75000	-137000	-119000	-122000	-74000	77000	67000	104000	35000
1965	92000	2000	-17000	50000	75000	-67000	-169000	-134000	-46000	24000	115000	225000	150000
1966	30000	-69000	37000	-26000	35000	-142000	-109000	-90000	-20000	-2000	111000	81000	-164000
1967	65000	23000	15000	-4000	80000	-83000	-80000	-92000	-99000	36000	193000	106000	160000
1968	-43000	-49000	27000	25000	68000	-110000	-98000	-128000	-33000	-23000	37000	108000	-219000
1969	179000	-30000	-11000	57000	49000	-51000	-107000	-179000	19000	-17000	81000	14000	4000
1970	130000	-33000	-6000	2000	120000	-66000	-100000	-62000	-128000	25000	49000	73000	4000
1971	101000	76000	-34000	40000	79000	-95000	-215000	12000	-46000	0	36000	61000	15000
1972	95000	33000	20000	3000	34000	-31000	-189000	-49000	-50000	178000	18000	-80000	-18000
1973	87000	141000	-69000	-72000	166000	-134000	-145000	12000	-94000	-36000	88000	106000	50000
1974	54000	5000	9000	-74000	73000	-55000	-137000	-22000	-43000	69000	128000	-17000	-10000
1975	33000	64000	-53000	-57000	73000	12000	-94000	-96000	-57000	16000	81000	60000	-18000
1976	75000	64000	-26000	-1000	111000	-105000	-45000	-45000	151000	-58000	19000	34000	174000
1977	-41000	-4000	36000	48000	-8000	-158000	-148000	97000	-73000	-23000	52000	144000	-78000
1978	38000	-29000	-29000	-7000	110000	-204000	-124000	50000	41000	103000	49000	46000	44000
1979	48000	-73000	14000	-140000	113000	-36000	-133000	2000	-49000	-8000	114000	104000	-44000
1980	99000	-53000	-46000	-86000	210000	-177000	-27000	-22000	-91000	57000	1000	93000	-42000
1981	103000	7000	-1000	19000	44000	-132000	-163000	-39000	30000	-12000	73000	53000	-18000
1982	65000	-14000	44000	46000	63000	-114000	-149000	43000	-136000	-24000	106000	138000	68000
1983	61000	-60000	69000	-72000	-10000	150000	-28000	0	-156000	-149000	65000	143000	13000
1984	33000	31000	-15000	-194000	94000	28000	55000	-5000	-102000	-44000	-48000	16000	-151000
1985	207000	17000	1000	30000	-74000	35000	19000	-34000	-147000	-102000	13000	-64000	-99000
1986	243000	-68000	88000	-65000	74000	-7000	-100000	-128000	-54000	62000	-36000	106000	115000
1987	202000	-16000	57000	-37000	37000	-134000	-199000	-31000	39000	12000	128000	-80000	-22000
1988	151000	116000	-87000	95000	-23000	-60000	-219000	46000	-9000	-11000	35000	70000	104000
1989	109000	-19000	-51000	-82000	208000	5000	-186000	-104000	-95000	16000	151000	79000	31000
1990	129000	-108000	22000	-58000	-20000	-49000	-28000	51000	-91000	-57000	14000	159000	-36000

Evaporation from Lake Mohave in Acre—Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1950	4547	4561	6063	8096	10649	12386	12919	12050	10719	9777	8098	7851	107717
1951	8918	9328	12614	15867	22014	23946	22646	20527	17059	13919	10493	9307	186638
1952	9584	9599	12732	16176	21602	24539	24674	22270	18050	14872	10636	9339	194073
1953	9621	9551	12900	16701	22083	24216	22912	19941	16617	14134	10613	9556	188845
1954	9804	9898	13433	17135	22656	25696	25362	21918	18195	15332	10914	9572	199914
1955	9712	9873	13335	16979	22807	24341	23389	20944	16327	13348	9735	8938	189727
1956	9689	9867	13197	17011	22571	25030	24210	20725	16519	13393	10024	9021	191256
1957	9765	9809	13086	16841	22479	25218	23990	21137	17318	14657	10639	9304	194243
1958	9444	9961	13270	17057	22674	25132	24297	21872	17752	14765	10631	9431	196285
1959	9781	9845	13134	16446	22607	24796	23518	21149	17111	14254	10536	9453	192632
1960	10061	9920	12675	16095	21238	24222	23324	21167	17486	14216	10140	9351	189895
1961	9831	9848	13064	16836	22528	24841	23882	21184	16945	14068	10351	9520	192899
1962	9790	9982	13145	16668	22393	24870	23755	21038	16935	14099	10343	9566	192585
1963	9792	9840	13134	16836	22777	24729	23914	21196	17210	14060	10077	9207	192773
1964	9831	9770	12990	16757	22711	25103	24359	21306	16897	14216	10337	9288	193565
1965	9787	9792	12993	16748	22698	25590	24471	21341	17059	14142	10415	9671	194708
1966	10029	9840	13255	16724	22424	24772	24097	21248	17107	14080	10362	9256	193192
1967	9672	9737	13038	16550	22473	25211	24692	21788	17177	14285	10712	9660	194996
1968	9817	9681	13008	16649	22528	25081	24471	21376	17149	14033	10126	9118	193038
1969	9826	9742	12949	16724	22509	25483	24760	21353	17374	14243	10394	9128	194484
1970	9700	9620	12808	16284	22344	25182	24545	21822	17069	14154	10245	9137	192909
1971	9630	9842	12997	16705	22668	25355	23977	21725	17374	14308	10318	9172	194073
1972	9655	9748	13071	16626	22288	25369	24153	21537	17201	14839	10647	9130	194264
1973	9599	9974	13046	16264	22595	24987	24097	21833	17238	14057	10283	9247	193219
1974	9630	9644	12893	16091	21750	24643	23787	21358	17088	14339	10586	9223	191032
1975	9566	9723	12789	16022	21642	24936	24372	21468	17111	14154	10332	9181	191295
1976	9622	9790	12956	16460	22546	25139	24845	22192	18701	15150	10881	9612	197894
1977	9773	9762	13149	16933	22436	24686	23762	22013	17486	14312	10364	9401	194076
1978	9776	9695	12817	16280	22276	24241	23454	21474	17573	14858	10738	9520	192701
1979	9925	9723	13016	15957	21794	24803	23977	21668	17313	14227	10472	9401	192276
1980	9944	9798	12893	16043	22528	24662	24496	22002	17393	14540	10389	9307	193993
1981	9840	9859	13142	16789	22564	24965	23965	21422	17481	14350	10448	9265	194089
1982	9683	9644	13023	16766	22650	25197	24253	22147	17304	14158	10402	9423	194450
1983	9862	9695	13182	16413	21731	26019	25823	23324	18099	14346	10424	9458	198376
1984	9820	9906	13153	15888	21602	24965	25362	22875	18028	14683	10359	9102	195741
1985	9884	9930	13244	16970	22077	25597	25731	23024	17929	14381	10307	8866	197940
1986	9709	9544	13020	16264	22027	25240	24594	21491	17144	14358	10157	9139	192687
1987	9914	9870	13368	16817	22558	24943	23717	21242	17379	14358	10599	9088	193853
1988	9712	10031	13057	17034	22479	25383	23977	21918	17702	14536	10477	9330	195636
1989	9884	9831	12919	16087	22583	25963	24692	21719	17140	14177	10536	9398	194930
1990	10023	9726	13049	16308	21570	24465	24291	22225	17578	14258	10223	9318	193034

Flow Gains from Hoover Dam to Davis Dam

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1906	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1907	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1908	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1909	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1910	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1911	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1912	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1913	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1914	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1915	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1916	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1917	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1918	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1919	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1920	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1921	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1922	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1923	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1924	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1925	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1926	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1927	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1928	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1929	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1930	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1931	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1932	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1933	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1934	-7680	5354	16097	14790	12380	16119	25940	13170	8379	5863	4566	2197	117176
1935	-4908	-367	13794	-21700	-19598	-22739	1551	-46431	-16443	-25183	-2223	-13783	-158030
1936	-1669	-4808	19962	-14659	3678	-12396	-2975	-34094	-8237	-19357	-13772	-25534	-113861
1937	1535	-10499	18466	-19975	9281	772	6575	-28287	-11809	-24404	-8458	-20688	-87491
1938	-9026	1986	23662	-8481	13036	217	13556	-15705	-422	-26756	29640	-10511	11196
1939	-98824	6315	61212	-4461	312	-3616	-7809	-48450	10747	-30975	-9266	-9539	-134354
1940	13823	6243	-1372	10005	10137	-8881	1084	-24319	-1197	-13801	9795	24633	26150
1941	19740	15061	55958	-3100	-114606	10247	27087	-69060	-56661	995	47665	100688	34014
1942	-37158	26915	-2523	-98276	-38656	-49227	33385	-28647	-59187	12963	21160	1962	-217289
1943	-24890	-12570	-15149	-13412	-28750	-46611	-39341	-49725	-34604	122	1795	-9573	-272708
1944	-33827	-68384	-37549	-4959	-55502	-8617	-39490	-57559	-29791	-32760	2867	35515	-330056
1945	-38769	-22948	10749	-25389	-67298	-51745	2997	-60271	-43617	-70610	-4897	43842	-327956
1946	-45243	-16470	21000	-17165	75	-6522	-23282	-23068	-22533	-35227	35416	-1422	-134431
1947	2188	27307	40785	-37219	26514	2811	-26804	6155	-36687	-4162	21281	24819	46988
1948	36305	-2206	26668	7983	25887	-45862	-4676	2649	-8315	32480	-25155	27459	49217
1949	6456	-1709	-7013	22644	15295	-28987	-6988	-50627	-33258	34905	15315	55474	21507
1950	-245569	4097	-1894	2159	2629	8770	9248	-357	7470	851	-12921	-21735	-247251
1951	-32543	-33100	2605	27195	22347	43083	40283	30587	18213	23025	-1706	-858	139161
1952	22299	1046	9538	17495	12309	18849	21118	13024	22361	18613	-7861	8964	157755
1953	21925	7992	17266	4179	19740	29832	40410	11112	166	-576	-9460	-11437	131149
1954	11475	11959	-9512	14443	33012	11028	24504	12024	-8743	-3253	9437	-4964	101409
1955	7563	4996	-5391	6520	22160	36294	48692	29147	16595	15152	3289	-8362	176454
1956	-12806	-287	17276	22600	34856	33554	27076	25590	13998	7560	-1687	-11207	156522
1957	-22316	-16609	-8891	2146	4673	5108	21552	16014	1047	8292	1109	-11664	461
1958	1302	-2327	10128	21713	14273	23043	25639	17112	3940	2041	-4767	-4306	107790
1959	-3865	3372	2699	8269	9325	17617	18977	16421	15941	11893	3185	10425	114261
1960	7249	-2206	6283	-1746	-17482	-16338	-24492	-8854	2188	-2458	-2834	-18380	-79070
1961	-15357	-4840	-11482	984	-8263	16124	8964	15595	18494	14268	-11571	-24494	-1579
1962	-4088	1062	1805	15352	4253	2086	16890	6083	1834	6725	9771	-14635	47139
1963	-6539	-929	56	5924	9481	29369	13174	18774	7324	4028	-9381	-24002	47280
1964	-23454	-8610	5501	5409	-4222	-80	34651	42306	29224	12395	-975	-338	91807
1965	5699	13399	14310	20918	30732	35475	52836	51798	41519	24372	5651	-8159	288551
1966	-2586	25760	46574	59725	48341	50796	53874	57330	48707	23158	7387	-7033	412031
1967	2326	9360	30549	35377	38108	43593	49394	56505	23249	5907	-3011	-15662	275096
1968	9397	22347	6221	18662	24558	42448	37559	36080	17897	13558	3429	-3222	228935
1969	-14170	13899	28911	34469	18571	37777	39453	31464	20688	18062	-7983	-4914	216226
1970	888	12629	35799	52911	35553	38149	39836	38437	12667	14212	11182	5816	298078
1971	-1625	22281	42084	31390	22447	38876	68784	36194	222	16782	11945	2641	292023
1972	-435	17736	41611	48032	49683	48845	50032	33841	22245	-7262	16459	25981	346768
1973	4038	9728	42609	24235	6193	28118	12885	15367	20065	14899	-6298	-7549	164289
1974	7416	10955	8454	23057	10890	15536	22132	24205	32900	-1374	-26079	-1784	110238
1975	-26852	-17485	10380	14905	8848	9812	21446	7852	19918	12622	-2396	-11386	47665
1976	-676	4958	31167	40905	34724	14673	25529	22222	15606	16451	12933	16342	234834
1977	22532	24148	34901	44885	43857	61127	75015	30664	23880	31298	7760	17980	418066
1978	22201	25607	52513	68008	52109	53353	66720	62651	36737	16044	15560	13047	484569

Flow Gains from Hoover Dam to Davis Dam

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	18369	25686	32173	48043	40987	42062	74274	70832	62405	49320	1575	2907	468633
1980	-2537	35048	19206	46674	24058	29909	27762	35978	45263	15396	21774	15892	314421
1981	6381	-723	18941	27480	21755	33880	48124	45458	14545	15808	8608	-2521	237735
1982	-6021	20870	25076	45278	18796	37447	52116	30315	13991	14149	-12979	-19949	219089
1983	21687	23754	27662	45521	43922	30808	93556	95558	31172	45730	39634	22183	521187
1984	22578	26244	1150	20776	40198	47931	40642	28809	44397	-36835	24863	31402	292153
1985	7296	-557	19167	17003	54119	38639	34793	36083	24969	15409	5331	5888	258160
1986	-2271	6561	14052	20299	13076	28285	33640	42541	18183	12387	-817	25155	211091
1987	931	20887	24390	17750	-3098	3493	15566	12296	12823	40995	13916	-3101	156848
1988	-8772	6147	21482	36650	30214	41128	61932	44971	18945	26681	18208	11055	308641
1989	804	25748	15544	46020	33325	47190	67252	59778	39791	7912	-335	-60477	282553
1990	2544	7745	9979	21045	27625	36528	28368	15489	8825	3399	-8046	-19959	133542

APPENDIX 4B
SALT MODEL STATIONS
HOOVER DAM TO DAVIS DAM

Colorado River below Hoover Dam – Salt Load in Tons

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	655367	785121	896331	1327442	1602957	1452937	1074496	1129932	1274827	1006258	850409	663572	12719649
1906	694771	995777	1039243	1587926	1839812	1669660	1304283	1382490	1547445	1130574	970549	710864	14873394
1907	732102	1195346	1174633	1834698	2064200	1874978	1521976	1621757	1805715	1248348	1084365	755667	16913785
1908	629443	646530	802310	1156072	1447132	1310355	923320	963774	1095473	924470	771368	632458	11302705
1909	734175	1206433	1182155	1848409	2076666	1886384	1534070	1635050	1820064	1254890	1090690	758157	17027143
1910	643960	724139	854961	1252040	1534394	1390201	1007978	1056822	1195912	970271	815631	649882	12096191
1911	684311	956544	1248141	1319433	1541627	1513621	1390685	870038	813919	1421051	831438	670043	13260851
1912	670335	728405	844705	1081440	1681015	1971235	1728447	1406326	964955	1034559	916057	643161	13670640
1913	673401	694291	829319	1766151	1538097	1297213	1074714	789824	1046764	1052591	918197	657498	12339050
1914	692315	1004069	1182179	1597456	1880358	2222456	1930143	1825675	1066398	1176271	938677	676359	16192356
1915	664907	1699824	926287	1627796	1612958	1357496	1265463	1014131	628754	879892	704245	627493	13009246
1916	768347	1545691	1647189	1754076	1883998	1515176	1447003	2245355	1124152	1585321	1000156	657491	17173955
1917	657707	613175	756390	1355554	1692478	1938536	3284443	1859835	965094	897712	758200	656060	15435186
1918	660779	462901	1036215	1022554	1345278	1549016	1667983	1015351	807376	904030	805423	665600	11942506
1919	567419	567775	781779	1404756	1494518	1170296	902383	925315	631434	782044	748102	764922	10740743
1920	791483	4108521	1158519	1339156	1707598	2483816	1661023	1527995	885230	853486	947389	668356	18132572
1921	666923	748694	1101189	1086104	1633278	2231096	1745123	2425915	1646082	937240	793147	745259	15780650
1922	690395	958442	1086538	1342436	1923198	2047496	1291563	1190291	910154	748105	687019	655530	16190167
1923	626891	500583	728817	1330856	1728878	1876616	1643043	1893255	1895322	1145005	1161922	760046	15332334
1924	710363	940509	804256	1703236	1562838	1417976	899483	539429	541788	766168	720877	622723	11229646
1925	574523	678324	830009	1362116	1286598	1219496	1113762	992089	1713336	1325356	911069	658953	12659631
1926	582978	544050	826077	1531630	1473120	1367520	948780	665009	447848	886239	559253	644770	10477274
1927	694600	762047	879780	1248480	1579450	1444840	1670660	1134690	3402360	1305590	1084590	609390	15817877
1928	691041	624500	849664	830660	1931040	1611710	733920	600695	650430	1205844	886650	607500	11222654
1929	590712	521950	1069800	1412860	1716480	1633700	1283440	2480840	1786900	1034280	733952	670888	14935802
1930	550405	564536	839430	2053600	1091880	1242710	666900	2824790	821032	1136384	760500	643926	13196093
1931	585390	577184	748828	737884	1067800	893040	475928	596417	512791	889050	735590	480361	8300263
1932	593157	1730736	1056398	1672950	2046060	1587080	1911420	1000616	1132800	658070	798380	640209	14827876
1933	629952	549762	516764	784800	1378850	1894560	1429020	693150	757712	844725	600964	702034	10782293
1934	642770	554424	629600	598128	833250	858568	349089	341347	411899	389983	441830	557440	6608328
1935	558979	331726	618613	501938	462756	568640	311744	246935	258684	394685	486373	336377	5077450
1936	352122	382920	589927	595765	483101	406773	388203	333202	294798	246814	235270	274439	4583334
1937	298454	322588	534977	584130	576647	619123	700581	659322	537166	481810	393464	360388	6068650
1938	350245	344150	449296	578772	557851	615070	624519	537990	484119	647294	603019	336101	6148426
1939	723323	1273174	623554	633230	603038	645358	705640	732160	624195	685028	720187	721228	8690115
1940	695440	477157	664452	660352	602458	609788	709346	707702	728018	817645	780669	811283	8264850
1941	628120	557867	607529	563782	1546373	1930231	1000448	1375837	1487442	1547505	1692503	1963541	14901178
1942	1968294	1522406	1402447	1287709	1345240	1559627	1266009	832710	988784	1105465	966408	973482	15218581
1943	955170	740581	888016	849638	957003	955997	1015409	969201	957318	1060738	1026099	1093592	11468762
1944	1162644	1210217	1244672	1125772	1169706	1037615	1034538	1108860	1009585	1102195	1097026	1119005	13421555
1945	1151274	1019660	1158485	958449	979958	928924	714266	767013	723462	937227	938456	944858	11281932
1946	981040	941217	906998	786082	812129	730724	740940	667600	674950	765673	681009	768156	9456518
1947	876836	802909	873581	785735	872202	841081	848601	791584	744487	713396	724272	950131	9824815
1948	1031801	997761	1008996	1054328	1010683	959001	999359	834466	826351	734837	887975	995196	11331774
1949	984178	988504	1085607	1003607	869628	841617	839565	856778	899453	906271	842408	1060879	11178495
1950	1053132	943661	926816	922126	925981	777258	785093	720551	701905	744252	713842	729641	10080258
1951	787383	655445	768920	726213	806780	617453	701270	802693	747967	671932	713971	724315	8724342
1952	942685	1105681	1289197	1306223	1438469	1285770	1079114	1028183	996142	882080	819838	1205632	13380814
1953	1125172	946326	972968	897148	887532	717766	787518	839270	830235	687351	644466	693097	10028849
1954	730983	673834	885241	938547	1045116	881482	973529	844166	886133	737496	643966	714009	9954502
1955	712865	723095	984594	975359	1021740	771498	937766	888234	698779	584194	535516	535286	9368926
1956	637368	547945	862938	958862	853877	907086	907236	799398	705952	573980	612255	483123	8850020
1957	554263	503876	807529	965237	817162	866985	822661	816367	803204	699003	930597	980528	9567412
1958	1103834	748530	1231134	1226271	900900	667985	727354	738312	642228	593260	604391	714897	9900998
1959	657485	543609	717762	799291	809023	642700	706027	728277	626814	567043	493070	468752	7759853
1960	534033	445610	630703	830135	777236	913333	884923	862733	723530	502113	440895	518155	8063399
1961	543288	534559	77932	850044	876068	791533	774113	691144	648595	502194	480191	450674	8020335
1962	448700	470529	769816	883361	873494	785025	808268	839678	697471	634118	606669	594442	8411571
1963	470930	551552	820900	805253	838945	698027	818140	764173	640654	469540	410470	522283	7810867
1964	578078	540064	753983	822335	811465	690316	837114	702367	608498	588073	451160	481969	7865692
1965	508525	523039	836865	750632	940863	842748	872503	870961	694846	563002	691339	466830	8291983
1966	260208	455891	816110	880553	917833	797693	887132	818337	645959	437848	439207	415693	7772464
1967	471437	539463	775477	699955	814611	718127	759891	687177	446791	519937	508109	332024	7272999
1968	373923	468993	804480	839859	811565	720430	729547	668199	639897	471613	449208	544526	7522240
1969	551450	552545	836741	888389	831994	755255	776022	697553	620962	519912	425674	466577	7923074
1970	619632	547501	760728	922571	790884	800010	668289	497350	588812	474436	514252	514252	8109843
1971	572275	674344	872617	927062	879891	752803	744947	737201	635275	516147	464726	523741	8301029
1972	607510	654738	889608	856463	832358	783570	766375	745926	624886	487322	372543	358066	7979365
1973	551126	515854	555914	776033	911587	635789	760286	781397	605628	504342	479534	546292	7617782
1974	419671	533998	778261	882640	905568	821221	784841	873270	662851	559403	461045	389105	8091874
1975	474730	589593	694775	798032	897723	742004	766283	748545	624391	514016	445306	461238	7736433
1976	471960	437281	837293	805084	848673	636356	771404	813305	355135	324101	281213	443516	7265713
1977	229625	556160	772906	893623	688535	653527	812165	793513	419362	379852	417009	508757	7125034
1978	212976	395745	679760	832275	792004	605137	764993	827451	637268	457067	346778	341382	6892836

Colorado River below Hoover Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	203264	275241	579756	657735	948919	812859	801456	819216	656877	490453	509578	472411	7227765
1980	440761	250859	873914	1065839	1192680	999294	1119622	1122560	823572	924370	782884	828647	10425202
1981	577678	498744	754123	942408	793561	773023	800849	847822	610197	349940	357557	366301	7672203
1982	427414	507330	732462	963815	779819	587841	679377	705993	363365	361753	350140	427182	6886491
1983	1092203	338486	586940	981300	1125430	1744790	2375695	2201650	1937241	1851281	1535925	1476188	17247129
1984	1621324	1475407	1472002	1279557	1565488	1740727	1752282	1496205	1264022	1232000	1211000	1286000	17396014
1985	1393000	1251000	1069000	1000000	1094000	1287000	1325000	1269000	914000	747000	786000	873000	13008000
1986	1161000	736000	1140000	986000	1440000	1220000	1134000	991000	942000	829000	742000	1002000	12323000
1987	1144000	803000	800000	677000	698000	603000	599000	727000	626000	488000	389000	452000	8006000
1988	590000	533000	594000	726000	640000	664000	649000	734000	501000	372000	363000	414000	6780000
1989	363000	386000	664000	732000	851000	731000	669000	637000	492000	475000	444000	451000	6895000
1990	426826	368814	749629	726539	748598	767994	858207	799789	479120	422699	375106	504914	7228233

Colorado River below Davis Dam — Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	584914	334167	663573	507652	507547	633314	342974	248575	276727	377616	461627	305854	5244541
1936	354080	403122	650612	613363	529658	445609	412632	331280	304368	254433	234232	422159	4955549
1937	280704	308119	529324	577640	580201	620310	717267	656827	570777	464837	385224	353553	6044783
1938	346001	345380	451838	584317	589534	653638	676841	564294	495211	665235	661088	325347	6358727
1939	648132	1265424	682648	642520	625798	665218	724641	706238	693320	649502	725840	719906	8749187
1940	710054	495984	680155	676473	645135	645372	746170	705895	748287	827364	820735	849655	8551278
1941	647414	579540	671665	572508	1512388	1854325	1020513	1366760	1444370	1556511	1746042	2035481	15006416
1942	1969705	1488605	1408287	1269048	1348201	1539020	1234140	834445	968493	1073082	1014340	1007824	15157690
1943	958870	727698	921863	860285	962666	973744	1002281	937302	933504	1063561	1038449	1111708	11491931
1944	1134623	1200183	1243379	1126690	1165642	1034754	1023470	1095227	992310	1139662	1181575	1139803	13477018
1945	1138901	1035450	1187115	975975	955339	931475	811317	792883	776551	940621	956024	961123	11462776
1946	962867	986590	890661	784408	868197	763243	767273	666860	690054	772356	707972	777200	9637682
1947	882142	809710	893351	835461	968936	881922	889324	791649	777648	759446	819466	972675	10281732
1948	1082184	1047080	1064430	1137066	1046275	950246	987181	827956	828357	743346	909487	1034031	11657637
1949	1012105	1007613	1091021	1023983	883351	848967	849732	840212	876035	921486	868381	1094602	11317489
1950	866520	1031113	1054760	952490	955280	824000	775960	691410	606570	618220	498010	512930	9356463
1951	512660	530530	708940	790510	657370	847210	902560	816020	697960	719500	563620	690100	8436980
1952	946530	1155330	1253160	1306600	1397710	1384550	1103170	1071260	1087990	963270	868730	1064040	13602540
1953	1012000	1040030	900350	851340	910890	924030	975100	934430	753840	574430	73860	583870	9934170
1954	730140	680950	742240	883430	1027900	914250	989070	976100	780300	624610	661050	676110	9686150
1955	733450	697040	840140	911800	918470	1047790	1082330	885310	813580	584530	455010	319040	9288490
1956	375490	485050	822470	892860	823790	1040700	1017280	985320	750300	582970	426480	359490	8562200
1957	322350	501440	763720	906680	760600	948430	997720	872740	741770	580380	896030	1021110	9306970
1958	1201800	651880	1280150	1295480	941120	832000	877640	766240	661680	563780	601200	678280	10351250
1959	634720	570450	703600	866160	700950	820870	883630	745070	650610	540210	399120	390510	7905900
1960	423660	503080	745520	824160	751740	932520	950780	823240	666800	524350	448450	303000	7897300
1961	446320	561890	856440	807120	823730	929550	889880	745830	700000	465550	665550	239130	7831990
1962	427530	426800	766880	874710	794200	877920	921620	833870	715600	530660	488980	347260	8006030
1963	468840	582060	812410	800560	772180	928990	928080	824710	648580	482170	394530	342320	7985430
1964	416260	571420	739680	765300	691410	816510	946940	831710	696600	487920	368020	355670	7687440
1965	401030	564200	851790	714390	860340	934880	1061980	1039850	793830	541300	317000	177210	8257300
1966	185270	581150	804070	973120	904110	1031660	1037810	946680	747890	450000	349340	326680	8337780
1967	402420	574170	782750	756110	768170	867980	854050	812790	576840	489880	326070	206710	7417940
1968	404070	531540	744140	810310	740940	837730	808840	786670	685490	488920	414340	419650	7672640
1969	342560	642500	818420	883810	781710	843830	865500	865280	604710	522490	333980	421310	7946100
1970	463800	632870	782330	985290	795730	879410	872200	740460	626370	553040	423100	441500	8196100
1971	461800	657730	914120	935630	789380	860450	970040	729610	660260	500300	432000	434590	8345910
1972	476300	659580	904380	917740	833940	852450	944880	769880	670320	301680	378300	462100	8171550
1973	474210	447650	674380	918450	787850	805980	919470	805420	735730	561610	406130	413370	7950450
1974	357960	615890	800560	1004320	824880	891330	915380	884580	712230	477190	316200	378570	8181090
1975	415360	536450	752520	901870	813360	742510	858100	817890	685260	500310	377490	387460	7788780
1976	390350	415980	869760	862100	765180	772550	818460	865510	428370	374370	267940	423680	7254250
1977	283380	632550	757780	902010	712840	852640	985220	702900	511410	422600	380330	398110	7541770
1978	192930	478730	737970	905090	711060	845100	910130	805270	628060	362324	315897	300081	7192643
1979	177528	364640	595257	906396	916400	911158	1031095	922700	780864	508673	419093	397339	7931143
1980	369768	330131	982000	1229964	1041480	1239000	1244400	1242300	1080983	921393	827912	780943	11290274
1981	501858	487296	796855	977760	787931	956186	935390	958342	610421	365304	294314	309132	7980789
1982	431638	546915	714400	1014750	768339	723045	848346	663754	484288	399840	237500	284501	7117316
1983	1093537	423297	535065	1101304	1154998	1608893	2496429	2403046	2240882	2087685	1551331	1394652	18091139
1984	1624712	1533971	1566180	1540575	1563693	1790015	1859805	1549287	1384142	1256124	1287707	1282276	18238487
1985	1201078	1218950	1089827	1007019	1181906	1250389	1312794	1317360	1091331	837489	785241	925554	13218938
1986	1030707	832484	1149321	1106118	1472083	1302183	1296614	1169458	1047232	835334	807452	997896	13046881
1987	1056988	872200	817120	751605	697526	727376	779782	789184	633963	533326	319624	529458	8508153
1988	495994	470535	698211	707884	698892	752770	775185	757096	542515	413208	364108	384113	7160511
1989	295551	431156	725925	841880	730309	783943	882864	780450	604423	481105	338505	356830	7252942
1990	357657	479137	765078	823566	824704	859475	924135	826521	584128	483744	384908	390383	7703437

Change in Lake Mohave Storage Salt Load

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1950	0	13293	-11129	44213	-6568	9149	29902	24833	83540	113768	218251	203444	722695
1951	260956	159449	49071	-37284	153359	-192673	-180332	10627	84814	-29761	187438	48732	514596
1952	4394	5787	-18946	-942	21432	-40528	18990	-2470	4003	1490	3647	11260	8117
1953	9065	-32863	47819	61926	-13528	-163227	-177212	-106989	84632	97289	168386	92123	67420
1954	-7765	33578	58643	12910	-14593	-42864	-43324	-158337	101173	73766	-11555	7529	9162
1955	-45674	62982	47019	7379	44697	-298130	-158855	-33142	-139843	-25419	76222	179401	-283362
1956	218136	73129	11868	58489	-3236	-140758	-147384	-216325	-60160	-56578	178444	112273	27898
1957	209607	18763	2138	48803	19748	-88330	-197912	-92004	45043	102950	64834	-1923	131716
1958	-49376	207323	-2676	37890	3413	-111968	-113436	-10833	8613	32511	27554	46377	75391
1959	24464	21227	1726	-46907	107028	-149784	-172004	-13177	-1682	35014	111576	81562	-956
1960	103681	-47417	-138091	-2766	-22315	-24246	-124475	15342	69905	-42832	-4661	187646	-30230
1961	69309	6060	-16589	48122	26078	-136238	-146536	-62424	-40963	26449	104778	177904	55948
1962	-912	71439	-41489	-7700	40357	-114977	-168643	-65674	-19857	35186	94304	200510	22545
1963	-16504	18088	3804	30166	64274	-197214	-118216	-62470	10144	-25593	10943	144746	-137832
1964	130417	-21442	-9218	51027	69860	-134674	-113180	-116088	-72734	74001	67218	104026	29213
1965	93825	2258	-18008	54722	80163	-72637	-177336	-141882	-50327	24948	122356	220658	138742
1966	26478	-76412	38098	-27665	36034	-153933	-110120	-88258	-20678	-1883	107973	75464	-194902
1967	61189	23973	13826	-3809	74513	-81565	-72948	-84803	-95281	33185	179932	97707	145918
1968	-39635	-46743	24623	23554	64032	-104778	-91323	-120498	-32446	-22104	37116	104853	-203347
1969	177270	-32900	-10572	58915	49017	-52700	-105987	-175594	19068	-16337	82905	13867	6950
1970	130027	-36537	-6001	2067	116474	-67564	-96073	-60809	-127150	24761	51639	76602	7435
1971	103893	83375	-33684	42142	79787	-96243	-208666	11768	-46594	0	37209	60413	33499
1972	97824	35615	19811	3041	33004	-31089	-181593	-46144	-48623	169311	17693	-77670	-8821
1973	84459	153078	-65609	-70026	157869	-131681	-139308	11534	-91471	-33890	84713	97717	57385
1974	50839	5264	8472	-71986	68747	-52947	-127630	-20060	-39660	62254	119321	-15504	-12890
1975	30740	65321	-49886	-55455	67273	11428	-87571	-88500	-53698	15064	77982	55312	-11990
1976	69129	62392	-23714	-953	102307	-100034	-41476	-41478	142287	-52895	17714	31336	164615
1977	-38194	-4039	32484	44742	-7219	-147328	-133528	86546	-68051	-20751	48485	134163	-72690
1978	35028	-29283	-26454	-6598	100355	-194363	-113094	45583	38630	93252	46750	42421	32226
1979	47846	-69994	13374	-144957	113000	-35716	-131735	2000	-48020	-7097	113754	104669	-42876
1980	101686	-50569	-46000	-84893	207900	-177000	-27540	-22220	-98596	56430	977	90898	-48927
1981	100940	6580	-970	18430	42680	-129360	-145070	-38220	29100	-11160	68620	49290	-9140
1982	73427	-13346	41360	45540	62370	-108300	-138570	39130	-125096	-23040	100700	132480	86655
1983	59190	-57893	63764	-68298	-9255	138618	-26180	0	-148403	-136074	58831	127679	1980
1984	28702	27173	-13250	-169524	81119	24201	47687	-4043	-80676	-34981	-38487	12633	-119445
1985	161192	13330	775	23239	-56719	26636	14460	-25875	-111873	-75131	9470	-46532	-67029
1986	183623	-50999	66235	-48711	55409	-5239	-74561	-95042	-40221	46449	-26865	79472	89550
1987	151319	-11968	42691	-27644	27838	-100899	-149784	-23434	29420	9136	96604	-59927	-16648
1988	113477	87541	-65833	73009	-17657	-45696	-166811	35107	-6784	-8288	26270	52950	77286
1989	82879	-14527	-39235	-63509	163920	3988	-145321	-80125	-74942	12686	119874	63234	28921
1990	113305	-90167	18242	-48563	-16850	-41007	-23481	43809	-75656	-46156	11745	133601	-21178

Salt Load Gains – Hoover Dam to Davis Dam

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1906	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1907	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1908	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1909	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1910	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1911	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1912	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1913	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1914	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1915	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1916	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1917	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1918	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1919	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1920	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1921	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1922	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1923	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1924	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1925	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1926	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1927	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1928	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1929	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1930	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1931	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1932	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1933	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1934	-5428	32761	9998	31418	12992	24270	17257	11660	23098	3463	16726	2170	180385
1935	25935	2441	44960	5714	44791	64674	31230	1640	18043	-17069	-24746	-30523	167091
1936	1958	20202	60685	17598	46557	38836	24429	-1922	9570	7619	-1038	147720	372215
1937	-17750	-14469	-5633	-6490	3554	1187	16686	-2495	33611	-16973	-8240	-6835	-23867
1938	-4244	1230	2542	5545	31685	38568	52322	6304	11092	17941	58069	-10754	210301
1939	-75191	-7750	59094	9290	22760	19860	19001	-25922	69125	-35526	5653	-1322	59072
1940	14614	18827	15703	16121	42677	35384	36824	-1807	20269	9719	40066	37832	286428
1941	19294	21673	64136	8726	-33985	-75906	20065	-9077	-43072	9006	54439	71940	107238
1942	1411	-33601	5840	-18361	2961	-20607	-29869	1735	-20291	-32383	47932	34342	-60891
1943	3700	-12883	33847	10647	5663	17747	-13128	-31899	-23814	2823	12350	18116	23169
1944	-27741	-10034	-1283	918	-4064	-2861	-11068	-13633	-17275	37467	84549	20498	55463
1945	-12373	15890	28630	17526	-24619	2551	37051	25870	53689	3394	17568	16265	180844
1946	-18173	45373	-16337	-1674	56068	32519	26333	-740	15104	6683	26963	9044	181164
1947	5306	6801	19770	49726	96734	40841	40723	65	33161	46050	95194	22544	456917
1948	50383	49319	55434	82738	35592	245	-12178	-6530	2006	8509	21512	38835	325863
1949	27927	19109	5414	20376	13723	7350	10167	-16566	-23418	15215	25973	33723	138994
1950	-186612	100745	-19185	43777	22731	55891	20769	-4308	-11795	-12264	2419	-13267	-1100
1951	-13767	34534	-10909	27013	3949	37084	20958	24154	34807	17807	37087	14517	227234
1952	8239	55636	-54983	-565	-19327	56452	43046	40607	95851	82680	52539	-130332	229843
1953	-104107	60841	-24799	16118	9630	43037	10370	-11829	8237	-15632	-2220	-17104	-27259
1954	-8608	40694	-84358	-42207	-31809	-10096	-27783	-26403	-4640	-39120	5529	-30370	-259190
1955	-25089	36927	-97435	-56180	-58573	-21801	-14291	-36064	-25042	-25083	-4284	-36845	-363798
1956	-43742	10234	-28600	-7513	-33323	-7144	-37340	-30403	-15812	-47588	-7331	-11360	-259922
1957	-22306	16327	-41671	-15754	-36814	-6885	-22853	-35631	-16391	-15673	30267	38659	-128726
1958	48590	110673	46338	107099	43633	52147	36850	17095	28065	3031	22563	9760	525643
1959	1699	48068	-12436	19962	-1045	28386	5599	3616	22114	8181	17626	3320	145091
1960	-6692	10053	-23274	-8741	-47811	-5059	-58618	-24151	13175	-20595	2894	-27509	-196329
1961	-27659	33391	-38081	5198	-26260	1779	-30769	-7738	10442	-10195	-8863	-33640	-132397
1962	-22082	27710	-44425	-16351	-38937	-22082	-55291	-71482	-1728	-68272	-23385	-46672	-382996
1963	-18594	48596	-4696	25473	-2491	33749	-8276	-1933	18070	-12963	-4997	-35217	36731
1964	-31401	9914	-23401	-6208	-50385	-8480	-3354	13255	15368	-26152	-15922	-22273	-149039
1965	-13670	43419	-5083	18480	-360	19495	12141	26477	48657	3246	217	-48962	104059
1966	-48460	48847	26058	64902	22311	80034	40558	40085	81253	10269	18106	-13549	370414
1967	-7828	58680	21099	52346	28072	68288	21211	40810	34768	3128	-2107	-27607	290859
1968	-9488	15804	-35717	-5995	-6593	12522	-12030	-2027	13147	-4797	2248	-20023	-52947
1969	-31620	57055	-28893	54336	-1267	35875	3491	-7867	2816	-13759	-8789	-31400	29976
1970	-25805	48832	15601	61979	-10367	20962	-23883	11362	1870	-11011	303	3850	93692
1971	-6482	66761	7819	50710	-10724	11404	16427	4177	-21609	-15847	4483	-28738	78380
1972	-33386	40457	34583	64318	34586	37791	-3088	-22190	-3189	-16331	23450	26364	183364
1973	7543	84874	52857	72591	34132	38510	19476	35557	38631	23378	11309	-29205	390053
1974	-10872	67156	30771	49694	-11941	17162	2909	-6750	9719	-19959	-25524	-26039	76326
1975	-28630	32378	7859	48383	-17090	11934	4246	-19155	7171	1358	10366	-18466	40354
1976	-12471	21091	8753	56063	16812	15960	5580	10327	15522	-2626	4441	11500	153152
1977	15561	72351	17358	53129	17086	51785	39527	-4067	23997	21997	11806	23516	344046
1978	14982	53702	31756	66217	19411	45600	32043	23402	29422	-1491	15869	1120	332033

Salt Load Gains -- Hoover Dam to Davis Dam

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	22110	19405	28876	103704	80481	62582	97905	105484	75967	11123	23269	29597	660502
1980	30693	28703	62086	79232	56700	62706	97038	97520	158815	53453	46005	43194	816145
1981	25120	-4868	41762	53782	37050	53803	-10529	72300	29324	4204	5377	-7879	299446
1982	77651	26239	23298	96475	50890	26904	30399	-3109	-4173	15047	-11940	-10201	317479
1983	60544	26918	11889	51706	20313	2721	94554	201396	155238	100330	74237	46143	845990
1984	32090	85737	80928	91494	79324	73489	155210	49039	39444	-10857	38220	8909	723028
1985	-30730	-18720	21602	30258	31187	-9975	2254	22485	65458	15358	8711	6022	143909
1986	53330	45485	75555	71407	87492	76944	88053	83416	65011	52783	38587	75368	813431
1987	64308	57231	59811	46962	27364	23477	30998	38751	37383	54462	27228	17530	485505
1988	19472	25076	38378	54893	41235	43074	59374	58203	34730	32920	27379	23063	457797
1989	15431	30628	22690	46371	43229	56931	68543	63325	37482	18791	14379	-30936	386863
1990	44136	20156	33692	48464	59257	50474	42448	70541	29353	14889	21547	19069	454026

APPENDIX 5A
FLOW MODEL STATIONS
DAVIS DAM TO PARKER DAM

Colorado River Below Davis Dam – Flow in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1917		262806	426982	1159827	2521203	3714394	2619383	757214	456424	377354	347712	348626	12991425
1918	339309	296743	630732	644006	1490810	2495906	1758052	612511	335252	385406	358982	333373	9680582
1919	225738	260114	458478	876307	1727994	1695812	951896	661288	256983	372195	358795	412080	8257482
1920	316029	634739	586025	860528	2968524	3544081	1564571	912248	361738	351719	321051	295428	12716681
1921	277187	320787	573376	650017	2453579	4599143	1738992	1386745	708625	363353	359496	420095	13851715
1922	426569	394961	745192	850135	2789320	3558482	1203533	590783	357317	237647	302403	338257	11794599
1923	283907	266999	352345	821895	2088784	3242276	1715849	1016315	879438	537060	558098	413545	12176451
1924	348389	335101	386608	1066908	1840453	2047082	795409	254955	209270	249945	287865	252011	8073996
1925	174268	275442	404241	816073	1233463	1518236	1027084	480594	741185	671557	403627	297407	8043177
1926	246939	225438	372645	963092	2027045	2337365	945935	374534	204649	306386	217360	269982	8491372
1927	233515	334212	427233	749199	2325844	2227413	1742774	635753	1328265	661288	496611	315228	11478335
1928	302817	303781	415925	621465	2433542	2487641	1050377	433064	248517	361888	367824	256294	9283127
1929	224211	226927	557585	1050127	2163546	3046417	1330391	1383614	1019320	621590	374161	311383	12309272
1930	219714	258924	389739	921253	1227077	1912084	771741	1054510	371306	378155	316780	230622	8051905
1931	190849	264860	281866	345057	685457	909994	350893	226627	162710	362853	271697	187518	4240381
1932	225187	522733	541693	1073044	2292909	2280761	1476159	527529	463299	236633	264121	229295	10133363
1933	191275	192164	352420	325985	770300	2498035	878211	284909	254779	299098	205839	253589	6506604
1934	235994	223709	246839	264976	686710	410929	100984	91667	122686	113144	127119	168445	2795202
1935	321350	211788	446980	412508	547449	960879	706824	579522	577952	579495	569977	286035	6200759
1936	295997	320706	579630	573310	563300	598125	693075	578393	547599	434305	346590	289779	5820609
1937	294159	301569	532494	534255	556406	588205	675570	635789	544563	481708	404864	380832	5930614
1938	381242	363483	488945	570503	567355	623829	693619	620086	555831	747384	774643	388057	6774977
1939	672242	1288687	685320	624507	599517	628922	683937	669121	618888	645399	701819	692660	8511019
1940	695730	471017	633189	632427	585423	573435	674383	651440	693821	782475	785740	820294	7999374
1941	608984	515181	607940	515070	1320536	1819794	977699	1359933	1519626	1641508	1864353	2171006	14921630
1942	1973516	1576981	1422780	1203098	1304868	1511589	1318495	818050	965489	1175711	1116052	1158561	15545190
1943	1084363	810503	951140	901775	1000567	993536	1069912	992505	1007329	1178857	1180589	1267543	12442619
1944	1268499	1201116	1269697	1165504	1160126	1088655	1071607	1153150	1101994	1192706	1188802	1234541	14096397
1945	1200224	1076704	1260810	1017139	1000757	962815	863836	824549	825751	1009128	1037036	1105748	12184497
1946	1070773	1030977	1025107	855178	902726	810482	814191	727717	736156	821308	797675	858187	10450477
1947	986004	913138	996316	821438	977741	921568	898598	871288	806409	824088	901360	1087955	11006003
1948	1205816	1135569	1152503	1209984	1167728	1029988	1150693	970478	972922	949274	1003091	1151469	13099915
1949	1218394	1212352	1284246	1200843	1041538	957011	1013106	1011279	1107453	1211180	1037016	1293238	13587656
1950	1027000	1117000	1253000	1034000	1120000	945700	942000	829700	721000	708600	552200	587700	10835900
1951	587400	549000	794600	848100	728700	919000	1001000	904400	757100	797800	604400	764700	9256200
1952	1077000	1198000	1389000	1387000	1500000	1469000	1278000	1301000	1359000	1293000	1191000	1323000	15765000
1953	1228000	1076000	997900	893600	1010000	1002000	1117000	1083000	855100	673100	537500	684500	11557700
1954	846300	689500	822700	958000	1127000	959800	1073000	1048000	802100	677400	686500	718400	10408700
1955	770800	641900	839800	865000	883600	966500	1022000	828100	750500	551900	411900	304100	8836100
1956	354600	424500	762300	793800	763600	916800	918000	897300	661000	535800	382400	333000	7743100
1957	304500	427600	714500	830500	731800	891200	978000	872700	724600	586300	884500	1062000	9008200
1958	1290000	632000	1435000	1436000	1103000	943700	1029000	919500	768200	676300	698200	804400	11735300
1959	752400	618100	815200	960200	812100	920700	1048000	904700	773800	648000	468600	474000	9195800
1960	502600	551700	863800	893800	842200	1000000	1077000	912200	715400	587612	481038	335866	8763216
1961	489409	556352	929309	838624	884443	975684	965568	800501	734807	510454	384819	259422	8329392
1962	468761	418201	831781	908780	826324	893368	1000881	914195	720744	588187	513330	368891	8452843
1963	482923	547049	854214	822696	828964	975089	1028445	924113	703290	546355	432621	387854	8533613
1964	456423	586303	802465	794888	742285	830610	995438	874069	708724	507697	366828	355582	8021512
1965	393229	499663	804131	652750	804924	862327	1012061	981614	725584	520728	297942	180697	7735650
1966	209914	524775	780904	914532	878175	951683	1027255	965369	723382	478004	359133	350643	8163789
1967	427484	550877	849196	793995	824739	883253	936609	881765	599354	531439	349751	224255	7852717
1968	438373	557205	815972	860046	786284	879484	867980	835649	697200	508748	413044	432244	8092799
1969	345903	585866	851517	855087	781439	816607	893963	882062	602548	543697	326306	425362	7910357
1970	463703	571695	782213	853369	819820	859054	907848	754960	630555	558375	401480	420740	8123722
1971	448509	599553	922685	888072	781598	849335	999486	743991	651838	505118	417963	438810	8246958
1972	462552	611156	913005	905468	859113	850009	983419	817539	689306	317162	384859	475961	8269549
1973	488477	412330	709248	944543	828429	820177	957039	837989	756071	596577	421890	448410	8221172
1974	380217	584994	850445	1032412	875914	925898	982586	972312	772216	528900	339200	415100	8660194
1975	445900	525800	799500	927000	882600	779700	921100	887200	727400	531400	392100	420300	8240000
1976	423500	426700	953600	904900	830200	810900	888000	939000	454800	410500	287400	459700	7789000
1977	304200	626500	839800	967700	790000	914400	1092000	787800	548600	468400	407900	427300	8174600
1978	209300	474100	809000	960200	779400	887000	997900	885300	666600	400200	331100	325400	7723500
1979	178100	380300	623100	875400	916400	918400	1041000	922700	796800	573400	420000	394800	8040400
1980	360000	346000	982000	1246000	1052000	1239000	1220000	1230000	997700	930700	847000	799000	11249400
1981	512100	518400	821500	1008000	812300	975700	1051000	977900	629300	392800	313100	332400	8344500
1982	382100	573700	760000	1025000	776100	761100	912200	729400	526500	416500	250000	296355	7408955
1983	1127000	438700	579000	1161000	1248000	1741000	2670000	2494000	2355600	2286000	1714000	1562000	19376300
1984	1868000	1750000	1773000	1763000	1812000	2071000	2145000	1916000	1750000	1580000	1606000	1624000	21658000
1985	1542400	1554500	1406900	1300000	1542000	1643000	1725000	1731000	1434000	1137000	1078000	1237000	17366800
1986	1364000	1116000	1527000	1476000	1966000	1740000	1739000	1575000	1406000	1119000	1082000	1331000	17431000
1987	1411000	1166000	1091000	1006000	927100	966000	1036000	1044000	840400	706500	423500	706800	11318300
1988	660000	623500	922700	921100	910400	988400	1149000	992000	719700	548400	485100	507800	9428100
1989	388700	563900	943600	1087000	926700	982800	1130000	1013000	766200	606800	426400	445800	9280900
1990	407200	573900	922700	983600	978900	1027000	1102000	962200	702600	597400	458800	464600	9180900

Colorado River Below Parker Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1917		212775	372487	1192043	3181442	5421855	3348251	720378	402058	323281	294274	295164	15764008
1918	286103	245069	582928	597108	1619864	3138973	1992094	563556	282167	331210	305269	280345	10224688
1919	177933	216230	404132	854571	1949145	1903479	941911	615655	207722	318211	305086	357627	8245252
1920	263587	587202	535592	836526	3966924	5073640	1720762	895978	307964	298179	268430	243810	14996594
1921	226338	268175	522318	603548	3068378	7383082	1965396	1482155	666958	309544	305771	365610	17167273
1922	372074	340647	707088	824683	3644407	5102718	1247114	540600	303642	189078	250491	285082	13807624
1923	232810	216688	298789	792686	2484197	4479832	1931870	1018248	858162	484497	506355	359085	13663219
1924	294933	282021	332396	1078068	2111364	2420182	762912	205358	162597	200636	236583	202582	8290532
1925	130296	224755	349839	786120	1284763	1637596	1031103	426546	702670	626722	349231	245704	7815345
1926	197806	177652	318654	955274	2389626	2877560	935171	320511	158310	254313	170119	219572	8974568
1927	185205	281159	372738	711514	2858883	2701082	1970227	588285	1407234	615655	442878	262816	12397676
1928	250887	251812	361454	573062	3035164	3125142	1059037	378565	199291	308111	313924	206622	10063071
1929	176506	179044	505820	1058736	2600384	4110377	1408693	1478047	1021833	573195	320142	259115	13691892
1930	172313	209105	335486	906418	1276705	2216843	736499	1064011	317339	324069	264311	182497	8005596
1931	145547	214719	230866	291690	641758	893369	297373	178763	119717	309054	221199	142476	3686531
1932	177418	469695	489298	1086389	2805730	2786216	1600841	474643	409005	188127	214020	181256	10882638
1933	145940	146761	298862	273195	734898	3142538	856754	23765	205192	247323	159413	204070	6648711
1934	187528	176038	197712	216723	643115	356481	63960	55652	83422	104098	118048	159340	2362117
1935	321200	265000	436900	421600	504300	924700	665100	575700	553300	570300	552800	300400	6091300
1936	285700	314400	534100	562700	535200	552600	656900	587200	525700	433100	341900	299900	5629400
1937	285400	472500	520700	531100	526700	546300	643800	632600	532600	482100	396600	379500	5949900
1938	369400	342100	532300	555300	532100	572100	601300	609500	534000	559700	415500	385600	6008900
1939	647300	1303000	652600	585600	563800	588200	638100	651800	817200	663000	646300	660600	8417500
1940	681000	452600	654400	623300	495800	574000	621900	621700	657800	798300	736200	848000	7656000
1941	626700	560700	749700	608300	1359000	1628000	997700	1332000	1528000	1585000	1731000	2042000	14748100
1942	1957000	1482000	1494000	1136000	1588000	1536000	1226000	880100	797200	845400	1041000	1213000	15195700
1943	1015000	746000	886200	877300	956600	975500	1086000	990500	1006000	1160000	1149000	1231000	12079100
1944	1241000	1223000	1297000	1164000	1116000	982600	1035000	1148000	1114000	1178000	1156000	1187000	13841600
1945	1186000	1061000	1232000	984600	969500	919500	913000	770300	824300	1038000	1036000	1099000	12033200
1946	1041000	1028000	944100	830300	873300	754300	801100	721600	730100	758700	786600	870000	10141100
1947	952700	899100	939600	797000	904900	859800	844200	892400	819000	836400	879700	1037000	10661800
1948	1160000	1160000	1107000	1083000	1115000	989000	1108000	986000	940600	918000	977700	1106000	12650300
1949	1229000	1192000	1236000	1116000	982600	923100	951900	1013000	1099000	1148000	1011000	1158000	13059600
1950	1080000	1036000	1209000	997900	1066000	900100	897100	832700	703900	651200	541700	557200	10472800
1951	550300	508800	729600	764600	765300	861800	944900	944500	723200	709200	560500	707100	8671800
1952	1104000	1134000	1424000	1300000	1443000	1419000	1263000	1296000	1321000	1234000	1172000	1303000	15413000
1953	1198000	1020000	947300	808100	952700	955600	1093000	1056000	822900	633900	527400	634300	10649200
1954	797200	660900	782300	863600	1015000	882600	1000000	981600	754500	636200	637900	659000	9670800
1955	733900	988200	732500	758100	792000	866200	963400	848700	693500	498700	369400	286000	8140600
1956	317300	365500	627700	683800	670700	786800	864800	823300	633900	486300	321100	287900	6869100
1957	242800	348700	589000	731500	645000	782900	896600	816600	660900	503000	780700	1005000	7996700
1958	1285000	564700	1345000	1333000	1013000	853700	930200	866600	713700	609700	622800	752900	10890300
1959	676800	593000	690000	831700	705700	797000	962400	873300	682100	557900	405100	410500	8185500
1960	427700	473800	759900	810200	740200	879300	986200	868000	639400	489700	397100	322300	7793800
1961	379400	453100	741600	724500	705000	822500	899900	709700	606000	411800	319300	201800	6974600
1962	333700	373600	692000	756500	686000	778100	881900	821200	644100	471000	434200	286500	7158800
1963	349500	467300	734700	690300	707700	846200	933400	818600	630100	438300	334300	306500	7250900
1964	362800	479400	640100	652400	598100	742000	864000	795200	589300	409200	274900	245000	6652400
1965	289400	423000	634400	581000	604100	709900	845900	867000	599300	385400	220100	196700	6356200
1966	176000	412900	604100	729300	699000	790400	900700	852300	584800	355700	254500	320200	6679900
1967	305900	430700	677300	608300	648400	725600	855200	749200	490300	434565	247144	169768	6322377
1968	350465	450473	679924	699481	625933	722272	779396	725287	582534	404336	309287	312262	6641650
1969	253868	466559	739984	712394	640591	674450	764639	732903	488040	434089	220089	310319	6437905
1970	366947	441983	653662	750259	657074	705729	792210	674648	530031	453726	303852	328011	6658132
1971	338623	485759	742741	745955	660585	742900	877500	690020	565357	397136	309347	355483	6911406
1972	346002	480027	747165	766504	699620	688830	875120	716123	573569	223699	282748	388826	6788233
1973	355285	347628	641642	799747	696367	672942	829103	726120	644003	484034	309624	340388	6846883
1974	244506	481435	705015	864211	756110	790623	874327	824462	624485	398800	282000	324700	7170674
1975	362600	447300	690000	795400	769800	693800	825300	802500	650500	476500	336800	359500	7210000
1976	352800	364500	805300	771100	693600	717200	789500	842800	400000	354800	248900	356300	6696800
1977	257600	498500	683100	811600	651900	760300	956200	687600	460300	347800	288100	308500	6711500
1978	136700	397800	692100	849100	678800	762800	905900	791500	573000	360300	267300	270100	6685400
1979	151800	336800	575800	776100	829600	849700	960600	829800	709400	505200	367900	348700	7194700
1980	304100	386500	1056000	1121000	964000	1145000	1247000	1164000	981600	879300	760100	714700	10723300
1981	462400	453900	697000	869200	676200	829300	942000	881300	563800	326100	234100	293800	7229100
1982	329700	491790	652800	850700	658400	617700	763200	638400	500700	380200	219300	263900	6366700
1983	1007007	401732	591411	1050842	1127206	1612561	2439668	2420115	2265916	2202518	1604255	1473264	18198395
1984	1728442	1657194	1740739	1609000	1662000	1932000	2012000	1835000	1668000	1592885	1498710	1526478	20462448
1985	1521700	1470000	1376900	1209000	1375000	1557000	1609000	1602000	1363000	1055000	998700	1169000	16306300
1986	1333000	1020000	1428000	1307000	1806000	1635000	1518000	1447000	1293000	1047000	971500	1157000	15962500
1987	1339000	1056000	937300	806200	793900	792400	857700	861200	702400	562600	348200	558500	9559400
1988	589100	504100	732800	699400	739100	771400	906500	811500	576600	455200	362300	359600	7507600
1989	279100	452300	727600	863900	699400	705600	829500	707300	578700	493300	308400	285900	6931000
1990	281800	464000	678100	782700	778400	800600	843400	719800	557700	502300	365500	351700	7126900

Bill Williams River Below Alamo Dam, AZ – Flow in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1906	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1907	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1908	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1909	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1910	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1911	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1912	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1913	10100	56000	26700	6000	2100	1700	1700	7300	21600	1600	1400	4000	140200
1914	12200	50400	3700	1500	1400	1500	1500	1500	1400	2000	1600	1800	80500
1915	23300	59500	6500	1900	7500	5700	2200	1800	2000	1100	1300	1200	114000
1916	110800	81700	52100	14400	3600	2600	2800	10600	30200	1400	1300	4600	316100
1917	5800	44500	28300	7900	2000	1400	1500	5700	16400	1100	1000	3600	119200
1918	4600	34900	22200	6200	1500	1100	1200	4500	12900	2400	2100	7700	101300
1919	9800	74400	47400	13100	3300	2400	2500	9600	27500	3100	2700	9600	205400
1920	12300	93400	59500	16500	4100	3000	3200	12100	34500	1000	900	3100	243600
1921	4000	30500	19500	5400	1300	1000	1000	4000	11300	2500	2200	7900	90600
1922	10200	77200	49200	13600	3400	2500	2600	10000	28500	2000	1700	6200	207100
1923	8000	60400	38500	10700	2600	2000	2000	7800	22300	600	600	2000	157500
1924	2500	19300	12300	3400	800	600	700	2500	7100	1400	1200	4400	56200
1925	5600	42400	27000	7500	1800	1400	1400	5500	15600	1700	1500	5300	116700
1926	6700	51300	32700	9100	2200	1700	1700	6600	18900	5200	4600	16400	157100
1927	20900	159000	101400	28100	7000	5100	5400	20600	58700	300	200	800	407500
1928	1000	7800	5000	1400	300	300	300	1000	2900	1200	1300	1100	23600
1929	1100	1100	1200	1000	1100	1000	900	3500	16700	1000	1100	1300	31000
1930	1000	1000	7600	900	1100	1000	900	2100	14000	1000	1300	1000	32900
1931	1000	22100	1100	2000	1400	1000	1100	64200	11700	1400	1200	13800	122000
1932	4900	269300	22100	1400	1100	1000	1100	1400	900	1200	1300	1400	307100
1933	1200	1100	1600	900	1300	900	800	800	800	800	800	800	11800
1934	800	700	800	700	700	600	600	3200	1100	600	600	2000	12400
1935	9800	60800	25500	1400	1400	1300	1200	2400	3200	1100	1100	1100	110300
1936	1100	1200	1000	900	800	800	4900	6500	1300	900	1000	1900	22300
1937	2500	209100	27400	3100	1300	1200	1300	1200	2100	1700	1100	1200	253200
1938	1100	1100	100500	1200	1000	1100	1100	900	900	900	1000	2100	112900
1939	1000	1500	1100	900	800	800	800	1000	219600	2800	1500	1500	233300
1940	4130	16360	2570	2170	456	298	246	248	801	2400	724	50600	81093
1941	44670	70780	201500	128200	3680	595	2160	7780	14450	1570	1980	4110	481485
1942	10330	3530	3320	1630	541	452	373	270	298	329	403	436	21912
1943	2800	1410	9880	1700	309	361	240	1940	561	946	569	1180	21896
1944	1325	35590	92770	3190	666	333	276	246	399	351	540	579	136265
1945	704	809	62900	4640	490	305	300	837	300	440	528	1870	74123
1946	1390	1060	1000	1760	460	311	893	974	337	609	772	11160	20726
1947	2270	1200	1000	641	524	454	460	1170	1090	479	599	625	10512
1948	628	712	770	606	517	380	522	1523	325	452	532	835	7802
1949	6672	25377	19716	2097	623	437	314	404	355	1474	541	567	58577
1950	578	627	702	564	464	331	856	436	1188	397	449	553	7145
1951	613	535	552	548	495	317	289	59286	3731	2711	1365	25125	95567
1952	40130	3439	95083	10165	3172	2751	407	405	394	443	563	695	157647
1953	869	839	924	636	539	422	426	766	362	424	509	545	7261
1954	748	722	55357	2339	549	326	447	1057	481	368	482	572	63448
1955	652	603	585	524	403	282	3869	25964	512	536	611	728	35269
1956	1156	936	722	614	469	385	510	347	316	391	521	606	6973
1957	1070	2415	803	740	493	396	474	3020	387	1803	4064	754	16419
1958	774	10844	28239	15481	805	599	552	359	946	788	873	823	61083
1959	813	3515	1160	662	481	306	202	5319	317	323	484	3504	17086
1960	5599	4852	9279	759	379	214	236	209	267	327	420	539	23080
1961	564	563	590	476	321	253	192	1774	593	299	305	405	6335
1962	613	7924	2630	840	454	335	270	286	4023	526	485	696	19082
1963	799	754	833	687	506	276	195	17721	7464	803	2861	1287	34186
1964	1004	1057	1224	1281	668	304	265	21846	2351	600	698	839	32137
1965	1059	5090	10634	97691	1295	480	377	294	319	401	34296	121890	273826
1966	15003	4766	4245	1595	434	318	250	1041	332	352	424	52637	81397
1967	1615	1093	1480	946	619	443	426	2220	4524	617	482	19464	33929
1968	26083	13170	1686	573	382	225	723	474	462	402	396	571	45147
1969	11012	15275	9929	480	155	0	0	0	76	67	92	354	37440
1970	553	453	16091	331	338	193	218	2480	169	541	515	611	22498
1971	580	613	505	126	150	0	0	8750	974	302	342	891	13233
1972	686	693	733	130	152	0	0	328	501	19010	7448	5175	34856
1973	2467	28728	75421	22377	446	48	104	482	569	308	127	276	131554
1974	385	427	619	267	0	0	21	176	54	149	132	78	2318
1975	93	149	307	427	51	33	7	57	3	0	0	147	1274
1976	158	1730	15730	14020	23	1470	3060	3070	2890	3010	2980	3310	67031
1977	1680	1080	966	1160	616	276	717	757	817	687	868	494	10118
1978	226	190	10480	11310	8200	29	19	39	50	3540	10880	12310	57273

Bill Williams River Below Alamo Dam, AZ – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	5790	23340	34720	11360	24010	29400	21920	28420	20150	26180	30070	37270	292630
1980	14030	55820	189100	33440	44220	5050	87210	56100	65970	28040	720	585	580285
1981	594	539	519	475	1640	1670	14910	19600	17080	824	534	506	58891
1982	416	494	841	621	710	732	714	630	661	641	651	738	7849
1983	615	1327	105277	7121	552	524	590	3396	5160	5227	5141	3991	138921
1984	5760	11380	87830	540	783	774	807	881	740	841	774	696	111806
1985	696	649	70670	4910	1720	18500	21360	21130	19690	22790	19940	22230	224285
1986	21780	17900	17400	19740	19720	11310	6080	5970	14830	6110	782	648	142270
1987	671	670	739	734	1360	1550	1510	3100	3520	2780	2580	2580	21794
1988	2530	15260	6010	750	781	3480	843	2150	14020	1210	699	624	48357
1989	636	575	669	724	768	684	649	679	823	672	714	613	8206
1990	579	539	666	442	473	508	475	533	549	563	421	222	5970

Other Nevada Users Consumptive Use in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1965	1	1	2	2	2	3	4	4	3	2	2	2	28
1966	1	1	2	2	2	3	4	3	3	2	2	1	26
1967	3	2	3	4	4	6	7	7	5	4	3	3	51
1968	3	2	3	4	4	6	6	6	5	4	3	3	49
1969	2	2	2	3	4	5	6	5	4	3	3	2	41
1970	2	2	3	3	4	5	6	5	4	4	3	3	44
1971	2	2	2	3	4	5	5	5	4	3	3	2	40
1972	3	3	4	5	5	7	8	7	6	5	4	4	61
1973	4	4	4	6	7	9	10	9	8	6	5	4	76
1974	4	4	4	6	7	9	11	9	8	6	5	4	77
1975	4	4	5	6	7	9	10	9	8	7	5	4	78
1976	4	4	5	6	7	9	10	9	8	7	5	4	78
1977	3	3	4	5	6	7	9	8	7	5	4	4	65
1978	3	3	4	5	6	7	9	8	7	6	4	4	66
1979	3	3	4	5	6	7	9	8	7	6	4	4	66
1980	3	3	4	5	6	7	8	8	7	5	4	4	64
1981	4	3	4	5	6	8	10	9	8	6	5	4	72
1982	4	3	4	6	6	8	10	9	8	6	5	4	73
1983	4	3	4	5	6	8	10	8	7	6	5	4	70
1984	7	6	8	10	12	15	18	17	14	11	9	8	135
1985	4	4	5	6	7	9	11	10	8	7	5	5	81
1986	5	4	5	7	8	10	12	11	9	7	6	5	89
1987	2	2	3	4	4	5	6	5	5	4	3	3	46
1988	1	1	1	1	2	2	3	2	2	2	1	1	19
1989	1	1	1	1	2	2	2	2	2	2	1	1	18
1990	0	0	0	0	0	0	1	0	0	0	0	0	1

Other Arizona Users Consumptive Use -- Davis Dam to Parker Dam (Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1964	732	1149	1328	1304	1377	1560	1773	1597	1314	879	541	516	14070
1965	367	892	1184	838	1158	1446	1688	1633	1352	786	498	248	12090
1966	146	622	1090	1140	1170	1311	1504	1417	1230	581	583	516	11310
1967	516	968	1679	1811	1832	2681	2775	2251	1772	1360	976	403	19024
1968	412	1018	1388	1887	1717	1660	2050	2009	2006	1237	607	896	16887
1969	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	3	2	0	7	17	17	27	3	0	8	6	4	94
1974	15	32	71	30	40	55	53	50	51	32	31	20	480
1975	6	6	6	10	17	27	27	28	23	20	6	7	183
1976	31	17	41	37	37	61	54	59	57	27	30	29	480

No further consumptive uses through 1990

Other California Users Consumptive Use -- Davis Dam to Parker Dam (Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1964	27	41	61	49	54	67	64	59	48	30	24	16	540
1965	29	65	91	60	79	103	115	107	92	54	30	15	840
1966	40	172	302	316	324	363	417	392	341	161	162	142	3132
1967	143	240	305	291	354	386	431	393	312	259	183	136	3433
1968	111	193	252	220	257	270	236	393	272	164	134	166	2668
1969	139	236	235	245	296	245	290	283	270	126	89	197	2651
1970	83	137	101	161	151	200	209	168	117	78	99	57	1561
1971	56	73	109	176	176	219	228	185	158	45	82	106	1613
1972	97	93	178	199	238	204	278	303	277	87	28	86	2068
1973	96	146	157	249	221	270	294	257	254	178	73	39	2234
1974	12	126	116	234	300	369	319	233	319	125	115	48	2316
1975	64	34	169	203	287	292	299	321	264	282	11	4	2230
1976	82	53	277	361	299	671	597	542	268	125	106	55	3436
1977	29	131	154	185	189	230	222	340	148	184	136	92	2040
1978	64	91	114	420	236	387	362	298	303	71	37	11	2394
1979	56	31	333	225	218	405	492	554	304	65	36	41	2760
1980	24	144	301	415	262	412	514	756	500	282	69	41	3720
1981	108	163	333	310	361	471	498	451	408	328	109	180	3720
1982	53	101	272	349	419	470	452	536	393	235	114	38	3432
1983	223	242	287	659	498	675	768	819	185	36	0	0	4392
1984	0	0	190	139	1270	1686	352	261	259	309	166	0	4632
1985	5	27	31	81	682	163	595	397	399	124	74	2	2580
1986	659	74	267	179	233	265	257	285	210	191	126	74	2820

No further consumptive uses through 1990

Miscellaneous Consumptive Use in Acre-Feet

Mohave County Parks
 Bullhead City
 Mohave Valley Water Conservation District
 Consolidated Water Utilities
 Havasu National Wildlife Refuge

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1966	0	0	14	53	34	0	56	59	43	46	122	84	511
1967	0	0	0	0	0	0	0	0	0	0	0	164	164
1968	0	0	0	0	0	0	0	0	0	0	0	164	164
1969	307	237	80	1600	3470	3530	6700	8200	4439	-1120	-3100	4262	28605
1970	513	662	478	1711	1659	1572	1851	1791	1696	1033	445	347	13758
1971	349	522	3220	3230	2120	5120	4110	4170	4800	3830	1690	4080	37241
1972	5	1	1104	2461	3022	5809	6390	3616	3369	2280	2551	5162	35770
1973	1600	0	1412	1397	3133	8572	5317	4925	5872	4960	2899	746	40833
1974	-804	-602	1507	2995	2798	3349	2826	2664	6001	5431	1911	3880	31956
1975	0	0	2743	3263	3316	4951	6468	4304	-744	3787	2634	2903	33625
1976	17	11	9502	787	3203	9719	1588	6636	3068	1490	-2129	2520	36412
1977	-157	0	7457	650	1812	4767	3607	4843	5207	4458	-3028	2067	31683
1978	38	0	6077	1207	3954	6237	3428	6735	4048	-716	1221	1531	33760
1979	158	2099	4752	4392	2799	5286	5999	3680	3242	5212	-4441	1561	34739
1980	919	1190	4870	3562	4402	4973	4297	7140	4162	1745	1590	887	39737
1981	510	3117	4424	2365	4804	6308	4620	7422	4078	1084	501	378	39611
1982	1107	3750	4976	3979	2742	6529	7632	3863	2332	1406	240	624	39180
1983	6113	1159	1286	2595	4367	6319	44	35	33	27	25	21	22024
1984	22	23	29	34	43	42	42	38	39	34	30	23	399
1985	36	31	39	48	63	67	76	80	67	55	41	34	637
1986	2430	1721	1657	1301	1362	4734	6671	831	3094	7419	5574	2215	39009
1987	593	923	3333	4063	4110	6293	7209	7137	2800	1651	1359	4113	43584
1988	4175	453	3804	5401	3644	6337	6518	4906	4033	2424	1682	1348	44723
1989	1026	2344	6346	6191	4072	6773	8305	6558	4426	1842	732	380	48992
1990	948	2493	6331	5671	4783	5453	5815	4947	3767	2446	1632	1068	45354

Export to Mohave Steam Plant (Southern California Edison) in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1967	0	0	0	0	0	4	5	5	5	5	5	5	34
1968	5	5	5	5	5	5	5	5	5	5	5	5	60
1969	5	5	5	5	5	5	5	5	5	5	5	5	60
1970	7	7	7	7	7	7	7	7	7	7	73	26	161
1971	152	344	442	353	649	608	708	279	544	707	502	158	5446
1972	300	251	1559	978	1052	1293	1242	1352	1331	608	268	935	11169
1973	1161	548	622	866	886	982	1468	1104	1594	1128	986	842	12187
1974	1045	734	873	1054	1353	880	1193	1506	1368	1211	1086	1137	13440
1975	1359	837	1120	719	1190	1490	1630	1335	1148	1298	1384	912	14422
1976	1102	1059	187	727	1581	1617	1871	1506	1450	1081	1175	1353	14709
1977	1376	767	841	1254	1375	1438	1440	1529	1457	1110	1129	611	14327
1978	575	658	600	559	694	860	1024	910	909	984	661	619	9053
1979	771	989	645	988	876	843	1345	1414	856	1458	1103	646	11934
1980	647	501	600	1215	1079	1188	1052	971	1208	316	781	605	10163
1981	1002	1174	982	1089	1004	1449	1333	1148	1184	1347	1044	1227	13983
1982	1425	1375	1829	1115	1496	868	1606	1816	1608	1393	1428	1335	17294
1983	791	858	902	851	1620	1600	1602	1538	1586	748	1117	1463	14676
1984	1355	1368	1586	1186	1140	1418	1718	1546	1427	690	414	350	14198
1985	1002	1223	1509	1211	817	169	3	4	0	56	8	253	6255
1986	980	1062	1281	1333	1482	1253	1336	1117	1292	881	334	911	13262
1987	1021	1142	1295	943	796	1217	1664	1504	1535	722	600	1216	13655
1988	1335	979	775	1180	1619	1697	1894	1757	1352	1680	732	985	15985
1989	1164	1203	1548	979	1426	1702	1533	1517	994	930	669	600	14265
1990	878	1290	1246	914	1036	1230	1597	1772	1904	1429	2125	1852	17273

Export to Central Arizona Project in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1985	0	0	1303	1161	3805	1612	3936	12541	4916	2336	1110	782	33502
1986	15	16	1186	9659	9768	13320	22439	32265	14155	0	0	1884	104707
1987	2980	9065	19595	31203	33377	47197	70764	67085	36296	13685	6142	13288	350676
1988	9505	15644	41614	34797	49329	79428	108478	79301	37509	13946	15704	14805	500054
1989	9194	12221	68770	64615	68881	118096	150875	147430	65033	20371	15624	21290	762403
1990	13001	16598	85551	78295	78396	141290	127443	119997	61708	23675	17300	15798	779052

Fort Mohave Indian Reservation (AZ) Consumptive Use in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1975	7	19	128	275	197	437	363	556	381	148	17	54	2580
1976	125	28	443	338	783	641	799	1097	1254	477	584	432	7001
1977	0	0	0	4273	1374	2357	1126	1957	1983	1211	1877	1291	17449
1978	338	288	1682	2200	1712	2085	4027	3531	2117	1063	887	258	20188
1979	522	738	1101	2426	1573	1812	1816	2248	1855	973	730	422	16216
1980	508	1795	5268	8485	5330	9321	11199	10701	6899	2950	1138	888	64476
1981	725	899	1941	5784	4588	5350	7817	8431	7563	4315	3831	632	51876
1982	732	1497	4424	5714	6869	7679	7294	8867	5250	2865	1080	394	52665
1983	1599	1905	3893	7042	5087	5449	2755	3911	5831	4984	4440	324	47220
1984	2806	1560	2470	4452	6370	5516	6723	5430	4014	2036	0	0	41377
1985	0	0	0	10920	8748	3557	10982	9503	934	1	0	0	44645
1986	0	0	0	8630	1545	12760	8999	9301	336	7	0	0	41578
1987	4326	4326	4326	4326	4326	4326	4326	4326	4326	4326	4326	4326	51916
1988	5184	5184	5184	5184	5184	5184	5184	5184	5184	5184	5184	5184	62204
1989	4937	4937	4937	4937	4937	4937	4937	4937	4937	4937	4937	4937	59244
1990	3138	2510	4279	4621	5648	6846	7474	7189	5648	4735	3366	3306	58760

Fort Mohave Indian Reservation (CA) Consumptive Use in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1975	0	0	0	0	66	146	121	185	128	50	6	18	720
1976	390	252	711	1154	1041	2231	2848	2585	1274	560	505	249	13800
1977	0	0	0	3086	992	1702	813	1413	1432	874	1356	932	12600
1978	211	180	1050	1374	1069	1302	2514	2205	1322	664	554	161	12606
1979	379	536	799	1761	1142	1315	1318	1632	1347	706	530	307	11772
1980	348	472	1184	2346	2214	2393	3031	2865	1880	1025	663	461	18882
1981	267	332	716	2133	1691	1972	2883	3109	2789	1591	1412	233	19128
1982	289	590	1744	2252	2707	3027	2875	3496	2070	1129	425	156	20760
1983	757	902	1843	3334	2408	2579	1304	1851	2760	2359	2102	153	22352
1984	1408	783	1239	2234	3196	2768	3373	2724	2014	1021	0	0	20760
1985	0	0	0	4138	3316	1348	4162	3602	354	0	0	0	16920
1986	0	0	0	4209	753	6224	4389	4537	164	0	0	0	20276
1987	1632	1632	1632	1632	1632	1632	1632	1632	1632	1632	1632	1632	19578
1988	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862	22344
1989	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	21072
1990	1109	887	1512	1633	1995	2419	2640	2540	1995	1673	1189	1169	20761

Mohave Valley Irrigation District Consumptive Use in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1969	466	432	763	1567	1339	1450	1916	1457	1810	737	595	423	12955
1970	513	662	478	1711	1659	1572	1851	1791	1696	1033	445	347	13758
1971	418	676	903	1669	1356	1417	1905	1289	1209	934	596	293	12665
1972	316	547	728	1350	1059	1822	2017	1523	2660	886	497	449	13854
1973	247	462	1112	2138	2747	2534	2807	2877	2322	1435	514	460	19655
1974	462	743	1544	2556	2015	2136	1953	2164	4600	2632	817	281	21903
1975	99	181	892	1919	1405	3080	2630	4103	2930	1056	132	379	18806
1976	413	267	752	1221	1101	2360	3013	2734	1348	592	534	263	14598
1977	247	659	1175	3236	2456	3287	5115	4438	2436	722	739	426	24936
1978	188	287	790	2112	2145	2858	3947	3451	1931	698	491	177	19075
1979	501	913	1267	3356	2840	2982	3033	2972	1561	1134	827	1375	22761
1980	495	669	1677	3323	3138	3391	4295	4061	2664	1451	940	654	26758
1981	1260	1287	2608	3152	3440	4152	3822	6103	3006	1003	904	276	31013
1982	496	948	2533	3252	3899	4380	4206	4993	3093	1800	771	369	30740
1983	984	1097	1970	2678	3197	2803	3820	3699	2873	1229	1265	567	26182
1984	903	1094	2147	2379	2843	3046	3173	2907	2237	1707	745	315	23496
1985	374	685	1284	2322	2871	2306	3197	2868	1787	1234	811	474	20213
1986	894	951	1395	1921	1806	2851	3464	2394	1915	1103	837	555	20086
1987	776	788	1742	1797	2274	2954	3452	3559	2466	1343	762	601	22516
1988	531	1145	2116	2153	2897	3964	4125	3845	3399	2057	1246	1384	28862
1989	737	1420	3152	2843	3345	4171	5291	4586	3921	2255	1838	1757	35316
1990	1158	1985	2705	3395	3885	4590	4338	4977	3319	2204	1609	1894	35059

City of Needles & San Bernardino County Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1964	125	115	123	174	277	295	389	355	269	218	101	86	2527
1965	71	78	95	108	208	261	384	356	246	163	83	60	2113
1966	29	27	10	70	145	201	270	314	198	68	57	55	1444
1967	66	72	102	100	199	202	422	734	308	192	103	69	2569
1968	94	101	216	169	257	273	319	312	214	170	101	77	2303
1969	56	55	85	128	242	310	335	355	211	126	84	58	2045
1970	54	38	68	120	212	324	335	278	261	185	120	79	2074
1971	92	111	135	192	277	370	484	373	320	180	193	86	2813
1972	95	123	163	206	226	214	318	427	318	170	113	91	2464
1973	90	72	81	196	329	433	451	329	341	225	150	99	2796
1974	73	85	137	215	292	394	426	359	298	198	127	85	2689
1975	82	74	106	152	264	371	422	405	289	174	139	111	2589
1976	92	89	145	171	302	372	435	427	247	157	203	140	2780
1977	125	143	218	298	269	344	413	309	291	276	198	140	3024
1978	128	39	107	138	182	284	319	292	286	168	116	89	2148
1979	48	54	84	146	165	263	335	297	279	211	101	69	2052
1980	55	66	87	131	220	321	347	311	279	175	113	104	2209
1981	75	93	92	184	243	338	390	343	218	183	72	135	2366
1982	92	82	115	180	266	348	363	300	238	160	105	54	2303
1983	76	75	75	148	245	341	345	235	234	102	125	74	2075
1984	98	119	190	224	227	402	349	326	312	267	172	139	2825
1985	175	179	105	187	250	334	360	384	238	149	84	63	2508
1986	75	74	128	162	292	351	373	301	234	153	99	68	2310
1987	65	71	104	193	257	327	355	341	298	204	105	83	2403
1988	77	97	206	170	274	352	417	357	278	227	152	106	2713
1989	88	88	181	248	294	351	410	387	328	222	132	115	2844
1990	174	140	238	257	314	381	416	400	314	263	187	184	3268

Lake Havasu Irrigation District Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1969	128	124	215	208	229	262	305	350	320	282	183	186	2792
1970	167	154	198	263	334	395	413	395	362	299	219	166	3365
1971	133	212	260	323	319	330	497	419	437	357	280	202	3769
1972	216	228	388	345	422	488	637	645	568	358	321	302	4918
1973	240	207	269	349	503	532	699	478	584	480	387	342	5070
1974	264	354	420	498	646	696	722	767	717	643	478	496	6701
1975	383	328	479	505	673	788	896	889	761	632	500	433	7267
1976	422	395	495	575	753	886	878	859	611	578	482	393	7327
1977	340	370	450	557	951	992	867	814	734	508	506	435	7524
1978	324	332	449	575	716	874	922	1079	797	743	522	438	7771
1979	405	401	476	787	847	968	1029	970	920	870	535	476	8684
1980	398	371	501	675	849	959	1080	1132	962	868	657	530	8982
1981	485	404	505	683	856	1005	1091	1087	932	750	619	499	8916
1982	464	425	483	617	798	836	942	916	898	778	509	383	8049
1983	476	427	495	621	851	994	1110	824	797	705	604	545	8449
1984	526	555	721	661	940	995	990	986	833	794	641	443	9085
1985	520	437	670	819	928	1062	1203	1179	973	845	626	553	9815
1986	563	484	692	806	1006	1149	1201	1184	1003	781	695	540	10104
1987	548	561	697	843	967	1101	1374	1245	1076	978	622	624	10636
1988	607	627	806	781	1078	1123	1369	1283	1149	1173	909	759	11664
1989	716	734	927	1069	1208	1337	1486	1477	1318	1114	943	874	13203
1990	670	669	883	932	1127	1296	1386	1445	1079	1122	917	764	12290

Consumptive Use Prior to 1964 in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	52	70	70	87	175	192	297	349	210	122	70	52	1746
1906	52	70	70	87	175	192	297	349	210	122	70	52	1746
1907	52	70	70	87	175	192	297	349	210	122	70	52	1746
1908	52	70	70	87	175	192	297	349	210	122	70	52	1746
1909	52	70	70	87	175	192	297	349	210	122	70	52	1746
1910	52	70	70	87	175	192	297	349	210	122	70	52	1746
1911	52	70	70	87	175	192	297	349	210	122	70	52	1746
1912	52	70	70	87	175	192	297	349	210	122	70	52	1746
1913	52	70	70	87	175	192	297	349	210	122	70	52	1746
1914	52	70	70	87	175	192	297	349	210	122	70	52	1746
1915	52	70	70	87	175	192	297	349	210	122	70	52	1746
1916	52	70	70	87	175	192	297	349	210	122	70	52	1746
1917	448	532	687	817	567	625	858	941	618	409	569	452	7523
1918	448	532	687	817	567	625	858	941	618	409	569	452	7523
1919	513	605	790	938	608	670	908	986	656	440	649	518	8281
1920	454	538	696	827	571	629	862	945	621	412	576	458	7589
1921	452	536	691	824	572	632	869	954	825	414	573	456	7798
1922	454	538	693	826	578	638	877	964	631	418	575	458	7650
1923	452	535	689	822	582	641	884	973	637	420	572	456	7663
1924	407	484	617	737	558	615	858	952	716	401	516	411	7272
1925	369	440	555	664	539	592	838	934	599	386	468	372	6756
1926	369	444	559	668	543	600	846	946	607	390	472	372	6816
1927	371	446	561	670	549	606	856	956	613	394	474	374	6870
1928	214	267	311	377	455	501	744	856	529	322	278	215	5069
1929	216	269	313	379	461	507	754	868	535	326	280	217	5125
1930	226	281	327	396	472	519	770	885	546	334	292	227	5275
1931	228	285	331	400	480	527	784	901	556	340	296	229	5357
1932	204	257	292	356	471	519	776	897	551	331	265	205	5124
1933	206	261	296	360	479	527	790	913	561	337	269	207	5206
1934	232	288	333	405	501	550	819	945	582	354	299	233	5541
1935	210	265	299	364	492	543	814	944	578	348	273	211	5341
1936	212	267	301	368	500	551	828	958	586	352	275	213	5411
1937	214	271	305	372	508	559	840	974	596	358	279	215	5491
1938	217	275	310	377	516	568	855	990	606	365	284	218	5581
1939	219	277	312	381	524	578	869	1006	616	371	286	220	5659
1940	218	276	308	376	529	582	877	1019	621	372	284	219	5681
1941	212	269	298	364	525	578	872	1014	618	369	276	212	5607
1942	212	269	298	364	525	578	872	1014	618	369	276	212	5607
1943	234	294	333	406	539	593	889	1030	630	380	303	235	5866
1944	234	294	333	406	539	593	889	1030	630	380	303	235	5866
1945	234	294	333	406	539	593	889	1030	630	380	303	235	5866
1946	186	240	258	317	509	560	853	996	603	357	244	187	5310
1947	174	226	239	295	502	552	844	988	596	351	229	174	5170
1948	190	244	264	325	512	563	856	999	605	359	249	191	5357
1949	212	270	299	366	526	578	873	1015	618	370	277	213	5617
1950	226	286	322	392	535	588	884	1025	626	377	294	227	5782
1951	267	331	386	467	560	616	915	1053	649	396	344	268	6252
1952	283	350	411	497	570	628	927	1064	659	403	364	284	6440
1953	797	935	1229	1458	895	988	1322	1427	955	650	1005	805	12466
1954	681	803	1043	1241	821	906	1232	1345	888	594	860	687	11101
1955	1354	1569	2113	2498	1246	1378	1749	1820	1276	917	1699	1369	18988
1956	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1957	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1958	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1959	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1960	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1961	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1962	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979
1963	1353	1569	2112	2497	1246	1377	1748	1820	1275	916	1698	1368	18979

Export to Metropolitan Water District in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1939	5940	24340	6930	7000	11100	11840	12160	25730	16580	13030	24680	13170	172500
1940	-13470	-1770	23050	7960	10590	11530	13460	6270	12730	14260	11100	0	95710
1941	4790	163	2290	3690	2670	3900	1270	3480	4850	395	1700	1500	30698
1942	2930	26	0	2820	4050	0	0	0	0	13620	7690	0	31136
1943	2730	0	350	3820	7920	11380	1770	1920	1180	1510	2050	0	34630
1944	2210	4590	9760	0	1280	2030	1160	7310	5440	5257	5918	6678	51633
1945	0	1910	0	8449	9331	3493	1195	13668	9718	8601	1977	0	58342
1946	3128	3375	4568	1689	12652	10556	1141	0	17410	25871	5	0	80398
1947	0	0	443	4727	14992	25066	18327	0	0	7361	2446	11994	85356
1948	10834	12949	12565	25912	26314	17234	13355	14178	25416	10850	11181	13457	194245
1949	12740	12260	12750	14550	13350	17140	14196	13950	25830	10850	11181	13457	172254
1950	12960	12190	13470	12930	23770	11510	22700	18520	13270	14030	11050	13040	179440
1951	13450	11040	13780	20410	12700	25070	26010	24680	25060	23000	23400	12770	231370
1952	12990	12310	12990	12760	17080	14210	12970	12950	24320	18920	13610	9940	175050
1953	0	5443	21004	26422	23533	13278	22916	33521	34281	24714	9934	13271	228317
1954	11729	11792	24132	22251	31165	23447	36405	37099	35733	34926	35471	37006	341156
1955	25284	29993	39166	34698	34163	37731	32794	36123	35521	39466	35824	36317	417080
1956	29887	34387	35208	37284	33028	35758	36754	44916	47620	49699	47451	49501	481493
1957	48151	41801	51016	43540	57852	56334	56479	55970	49094	53928	52325	27493	593983
1958	26412	40709	49888	32841	49851	50798	54812	54794	47128	49270	42322	41344	540169
1959	53733	23619	55470	59052	67051	67669	67382	70121	63688	71149	62460	46544	707938
1960	68154	47581	60562	64941	74887	82499	86415	94100	91908	96764	76383	49996	894190
1961	84755	76564	99228	97445	101169	95881	97513	97820	95074	97387	76452	83401	1102689
1962	94714	46226	53614	89616	101010	97046	101190	101115	97606	98269	95989	97018	1073413
1963	100964	90025	66790	78638	82415	87906	90754	98853	98123	97086	85765	79813	1057132
1964	78433	72460	99990	81775	105140	100585	102248	99348	98626	102192	95522	100379	1136698
1965	97863	71897	104794	101933	105210	102214	97098	105875	100009	103293	99735	88140	1178058
1966	50927	63034	87617	102996	108484	104709	107531	107334	102440	105383	100425	105302	1146182
1967	105239	88851	79701	89372	96583	99547	104862	108196	103966	96660	102670	46986	1122633
1968	72145	75238	84793	98120	109134	105766	106222	108524	104251	106807	102418	107979	1181527
1969	103975	92268	65376	69858	89539	82628	110705	110091	102157	101461	97550	102967	1128575
1970	78502	97871	92515	104883	109970	106837	109301	105789	102971	106762	94618	90334	1200353
1971	97884	82481	102276	104432	107971	104139	107793	107045	103799	107763	103620	82797	1212000
1972	107209	100147	107934	96414	109117	103494	115473	113591	102879	107734	97353	50655	1212000
1973	107544	67258	57922	94058	108179	104851	108332	107672	104473	107481	104236	98134	1170140
1974	100044	44778	103356	103552	107637	104316	106731	106048	102098	107493	53953	81782	1121788
1975	55085	53111	68495	66992	79964	75476	82247	80320	66446	67710	40681	41968	778495
1976	47778	51994	67313	68102	76628	78675	93653	93740	71482	51299	39697	50494	790857
1977	57553	97538	114431	110209	116302	112745	117709	113671	89486	117205	113394	116648	1276891
1978	71081	43997	64337	63140	42133	62394	61598	66098	63126	63189	51681	57085	709859
1979	48694	39100	51453	74694	86004	81650	81494	81494	60382	68912	66859	68021	808757
1980	52374	46122	42121	68438	92435	80914	81079	86632	59813	75357	70397	61465	817147
1981	62076	46275	56965	78290	97132	84066	93080	73467	78649	66332	48334	41670	826336
1982	36089	37813	57845	66816	101443	96823	92463	87041	32925	34224	30680	38789	712951
1983	79866	28826	40059	59634	52904	66699	100277	102149	100048	93089	99198	81118	903867
1984	86821	62302	106008	108377	111996	109383	112638	112337	109442	112550	109013	92652	1233519
1985	83513	81604	104171	106555	118538	110769	113748	114669	108205	112418	111201	104135	1269526
1986	82914	98760	109071	110360	115338	110637	112300	112768	110183	113164	110230	113925	1299650
1987	109943	101946	105935	110267	106170	111402	108063	109320	109464	103251	99599	103476	1278836
1988	102792	88156	103031	99383	98808	100766	104314	105476	93681	101755	99880	102139	1200181
1989	92199	91161	98745	97017	100074	95964	106734	105096	104662	107166	93019	109553	1201390
1990	97247	91844	99944	95938	104821	102679	104790	103521	102230	102105	99722	110130	1214971

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1905	2319	4455	9103	15266	25407	35902	41893	36136	25405	14714	6396	3005	220000
1906	2319	4455	9103	15266	25407	35902	41893	36136	25405	14714	6396	3005	220000
1907	2330	4475	9144	15335	25522	36065	42084	36300	25520	14781	6425	3018	221000
1908	2330	4475	9144	15335	25522	36065	42084	36300	25520	14781	6425	3018	221000
1909	2330	4475	9144	15335	25522	36065	42084	36300	25520	14781	6425	3018	221000
1910	2330	4475	9144	15335	25522	36065	42084	36300	25520	14781	6425	3018	221000
1911	2335	4485	9165	15370	25580	36147	42179	36382	25578	14815	6440	3025	221501
1912	2335	4485	9165	15370	25580	36147	42179	36382	25578	14815	6440	3025	221501
1913	2335	4485	9165	15370	25580	36147	42179	36382	25578	14815	6440	3025	221501
1914	2340	4495	9186	15404	25638	36228	42274	36464	25635	14848	6454	3032	221999
1915	2340	4495	9186	15404	25638	36228	42274	36464	25635	14848	6454	3032	221999
1916	2346	4506	9206	15439	25696	36310	42369	36547	25693	14881	6469	3039	222500
1917	2346	4506	9206	15439	25696	36310	42369	36547	25693	14881	6469	3039	222500
1918	2346	4506	9206	15439	25696	36310	42369	36547	25693	14881	6469	3039	222500
1919	2351	4516	9227	15474	25753	36392	42465	36629	25751	14915	6483	3046	223001
1920	2351	4516	9227	15474	25753	36392	42465	36629	25751	14915	6483	3046	223001
1921	2356	4526	9248	15509	25811	36473	42560	36711	25809	14948	6498	3052	223500
1922	2361	4536	9269	15543	25869	36555	42655	36793	25867	14982	6512	3059	224001
1923	2367	4546	9289	15578	25926	36636	42750	36875	25924	15015	6527	3066	224500
1924	2372	4556	9310	15613	25984	36718	42845	36957	25982	15049	6541	3073	225000
1925	2382	4576	9351	15682	26100	36881	43036	37121	26097	15115	6570	3086	225999
1926	2393	4597	9393	15751	26215	37044	43226	37286	26213	15182	6600	3100	226999
1927	2404	4617	9434	15821	26331	37207	43417	37450	26328	15249	6629	3114	228001
1928	2414	4637	9475	15890	26446	37371	43607	37614	26444	15316	6658	3127	229000
1929	2456	4718	9641	16168	26908	38023	44369	38271	26906	15584	6774	3182	233001
1930	2446	4698	9600	16098	26793	37860	44178	38107	26790	15517	6745	3168	231999
1931	2467	4738	9682	16237	27024	38187	44559	38436	27021	15651	6803	3196	234001
1932	2488	4779	9765	16376	27254	38513	44940	38764	27252	15784	6861	3223	235999
1933	2509	4819	9848	16515	27486	38839	45321	39093	27483	15918	6919	3250	238001
1934	2551	4900	10013	16792	27947	39492	46082	39749	27945	16186	7036	3305	241999
1935	2583	4961	10137	17000	28294	39982	46654	40242	28291	16386	7123	3346	245000
1936	2609	5012	10241	17174	28583	40390	47130	40653	28580	16554	7196	3380	247501
1937	2657	5103	10427	17486	29102	41124	47987	41392	29100	16854	7326	3442	251999
1938	2683	5153	10531	17660	29391	41532	48463	41803	29388	17022	7399	3476	254500
1939	2709	5204	10634	17833	29680	41940	48939	42213	29677	17189	7472	3510	256999
1940	2730	5245	10717	17972	29911	42266	49320	42542	29908	17323	7530	3537	259000
1941	2767	5315	10862	18215	30315	42837	49986	43117	30312	17557	7632	3585	262500
1942	2788	5356	10944	18353	30546	43164	50367	43445	30543	17690	7690	3612	264500
1943	2809	5397	11027	18492	30777	43490	50748	43774	30774	17824	7748	3640	266501
1944	2823	5422	11079	18579	30921	43694	50986	43979	30919	17908	7784	3657	267751
1945	2828	5431	11098	18611	30975	43770	51075	44056	30972	17939	7798	3663	268218
1946	2816	5408	11051	18533	30844	43585	50859	43869	30841	17863	7765	3648	267082
1947	2804	5385	11004	18454	30713	43400	50643	43683	30710	17787	7732	3632	265946
1948	2792	5362	10957	18375	30582	43214	50426	43496	30579	17711	7699	3617	264811
1949	2780	5339	10910	18296	30451	43029	50210	43310	30448	17635	7666	3601	263675
1950	2768	5316	10863	18217	30319	42844	49994	43123	30317	17559	7633	3586	262539
1951	2756	5293	10816	18139	30188	42658	49778	42937	30186	17483	7600	3570	261403
1952	2744	5270	10769	18060	30057	42473	49561	42750	30054	17407	7567	3554	260268
1953	2732	5247	10722	17981	29926	42288	49345	42564	29923	17331	7534	3539	259132
1954	2720	5224	10675	17902	29795	42102	49129	42377	29792	17256	7501	3523	257996
1955	2708	5201	10628	17823	29664	41917	48912	42190	29661	17180	7468	3508	256860
1956	2696	5178	10581	17745	29532	41732	48696	42004	29530	17104	7435	3492	255725
1957	2684	5155	10534	17666	29401	41546	48480	41817	29399	17028	7402	3477	254589
1958	2672	5132	10487	17587	29270	41361	48264	41631	29268	16952	7369	3461	253453
1959	2660	5109	10440	17508	29139	41176	48047	41444	29136	16876	7336	3446	252317
1960	2121	4095	11432	17795	28267	43610	47543	40703	29442	16053	6937	3184	251182
1961	2749	5059	9677	16907	26375	41353	45330	38420	25042	15496	6107	3005	235521
1962	2313	4477	7698	18993	23278	35064	42401	39383	27320	15407	7736	3483	227553
1963	1937	5250	8662	12575	26268	30785	40967	34713	26282	15778	6265	2874	212356
1964	1876	3447	7417	12790	22011	31036	39004	33441	23705	16511	5128	3019	199387
1965	2294	4022	7425	12376	21072	27276	36534	32923	20569	14564	6358	2569	187983
1966	1736	3041	8211	14433	23014	30615	35293	31877	22731	12237	5897	2751	191835
1967	1951	3832	8091	9437	20287	26282	34950	31272	20394	13036	6302	2091	177924
1968	1864	4128	7741	11147	19761	27855	31126	25890	20115	11496	5113	1960	168194
1969	2006	2821	6126	11474	20096	24285	30290	29375	20056	9604	4855	2455	163443
1970	1577	3436	5958	8761	18407	25132	30247	26262	16929	9268	4613	1954	152546
1971	1515	2904	6097	9062	14336	22032	27938	22411	16692	8075	3785	1748	136594
1972	1326	2936	7646	9695	15545	22020	26567	21330	15222	7706	3185	1556	134735
1973	1134	2313	3961	7916	15421	21311	23877	19940	13906	8335	3428	1890	123429
1974	1101	2176	5107	7643	13637	20626	21058	18835	14235	7939	3345	1441	117142
1975	1053	1855	3726	5377	11405	16280	19682	17150	12645	6712	2928	1583	100395
1976	1124	2113	3780	10276	12004	15479	18126	15339	10513	6210	2940	1315	99219
1977	1110	2406	3656	7663	9871	18484	20897	17666	12348	7882	3389	1858	107229
1978	1260	2221	5194	7096	12998	20158	22951	19131	13120	8791	3073	1238	117231

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1979	973	2157	4853	8862	14354	21190	23662	19349	16929	9084	3203	1859	126473
1980	1658	2910	5093	9222	13832	21792	26805	21970	16134	9205	4243	2418	135280
1981	1986	3263	6084	11795	16900	26063	28691	25605	17444	8522	4670	2269	153291
1982	1580	3375	6210	10635	17843	23408	28553	25295	16961	9101	3958	1897	148814
1983	1846	3460	6757	9568	19638	26219	31915	25814	19714	11048	4815	2423	163217
1984	2057	3503	7939	11675	24552	28214	31878	27898	20628	9633	4352	2065	174394
1985	1810	3276	7254	14374	22802	32588	36150	31220	18202	11885	6025	2664	188249
1986	2726	4301	9944	13295	23031	33831	33622	31808	18799	11716	5570	2583	191227
1987	1841	4097	7583	15609	23359	33914	34880	32655	23016	14538	5337	2128	198957
1988	1972	4097	8274	13252	22836	33092	38346	31655	22255	15777	5700	2644	199900
1989	1944	3816	9744	17352	24020	32847	39148	31199	22957	13149	6187	2832	205196
1990	1963	3497	9090	14589	21617	34411	36853	31275	23075	13632	5809	2095	197907

Change in Lake Havasu Storage in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1938								-3400	-1400	167800	293400	-4600	451800
1939	30600	-34400	-10000	11400	-1600	4000	600	0	68700	-35700	2100	1000	36700
1940	-12300	5000	6500	-20900	47500	-65300	-6600	5400	2200	-55200	2300	-15800	-107200
1941	3800	-8100	-12100	-4800	-73900	177000	-37900	-3400	-21000	-8600	-10600	-5100	-4700
1942	600	94000	-94200	41800	-331700	-39900	99800	-57100	160000	290500	14700	-88700	89800
1943	84100	60200	41400	-3400	9400	-9900	-8100	-1600	-24400	-17900	-28500	-18300	83000
1944	6200	18000	6000	-18700	19500	65200	13400	-24400	-37500	-14500	-34300	700	-400
1945	3500	700	48000	16600	4800	20000	-68300	47400	-7100	-18700	-36600	-12300	-2000
1946	16300	-4600	59000	29100	-11100	21600	-18400	-4800	-29000	33200	-21200	-25800	44300
1947	5100	-20800	43100	9200	28000	-5300	-1900	-20600	-15400	-26300	-12800	500	-17200
1948	-4000	-6800	15800	61200	12000	-9000	1600	-36100	-4600	-2100	-29400	-5900	-7300
1949	-33300	13100	31600	52000	22300	-18400	7800	-25500	-31100	13800	-36300	75200	71200
1950	-71600	50500	16800	-2400	18600	-5200	11700	-94000	-5500	52600	-25800	1400	-52900
1951	3700	3900	-18000	58500	-11100	24400	-23400	-13600	-39200	25600	-3400	13800	21200
1952	-55800	17800	9500	42700	9000	9900	-22800	-32900	-8100	-8100	-5800	-9000	-53600
1953	2900	23300	12400	39800	11500	4700	-26100	-29200	-2500	10600	-25600	11200	33000
1954	-2800	1100	23200	26000	22000	-11200	-24600	-17300	-6400	-6400	-3800	-2900	-3100
1955	2200	2900	12800	43500	11900	-17900	-7600	-40200	-700	-7700	0	-6000	-6800
1956	-400	-13700	24200	45900	-2700	24600	-26500	-5700	-25800	-62100	-7100	-9900	-59200
1957	2200	2100	28100	33100	-3000	-9800	-10400	-13700	-14900	8200	-31800	3600	-6500
1958	-20300	13300	13900	35600	25300	7600	-24900	-15400	-18700	7100	-18100	2500	7900
1959	0	1300	18100	41100	-8400	-16600	-12500	-21300	7700	4400	-6500	600	7500
1960	-15200	11700	-4700	34300	800	10500	4400	-30100	-11300	-800	-6700	1800	-5300
1961	-3600	-10100	34500	13100	12000	-1000	-21600	3000	-5700	-16200	1500	-14200	-8300
1962	25100	-34100	26400	49400	-9000	-8000	-12200	-1300	-10300	-10700	-5200	-11700	-1600
1963	900	-22300	37400	36200	8200	-7200	-36700	9300	-22900	6100	-3200	-11000	-5200
1964	14700	-9900	9000	51400	15200	-32000	-7600	-20200	-9100	4100	-6600	-4500	4500
1965	3400	-25200	17600	13500	48800	-10100	-8000	-21100	-9800	6100	-9800	10000	17400
1966	-16000	4700	14000	33600	8800	2600	-16000	-26800	3000	-8200	-11000	-7000	-18300
1967	9200	-13900	19400	45500	6600	6800	-40700	-9700	-1800	-12800	400	-3400	5600
1968	6800	-9500	13500	42600	8600	5600	-26300	-19000	-9900	-6000	-11100	-1600	-6300
1969	-5300	21100	1300	44000	11000	-2800	-20700	-13900	-7400	-6000	-4000	-16100	1200
1970	7400	-7700	7700	48300	21800	-3800	-7800	-22900	-25200	-900	4900	-14400	7400
1971	400	300	17000	33400	14600	-2400	-11800	-18600	-4900	-11000	-9800	-11700	-4500
1972	900	8500	18700	28500	19400	-10600	-9800	-21400	-12200	-21800	-8300	6700	-1400
1973	1800	-4500	27300	34400	10000	-3600	-10400	-21700	-11700	-8100	400	-9800	4100
1974	-8300	15000	18000	37000	3600	-1400	-24200	-9300	-12400	8000	-22400	-14800	-11200
1975	10100	7600	3100	48100	8600	-9600	-3800	-22500	-1500	-14200	-4600	-9000	12300
1976	3000	-7700	17500	34000	19600	-12200	-28500	-11300	24400	-9300	-30600	26000	24900
1977	-23800	6800	18100	27000	14200	-8000	-16100	-18400	-1500	-5500	-6600	-7000	-20800
1978	6100	2300	12400	26500	14200	200	-21000	-15500	-3300	-10900	400	-11700	-300
1979	-12500	-4500	6300	7400	35200	-15700	-3800	700	7100	-8700	-200	-9000	2300
1980	11000	-61800	46100	42900	-400	-4000	-17500	-15900	7100	-800	-7100	19200	18800
1981	-13200	-3600	21500	36200	4400	800	-35800	-5600	-2400	-16300	7200	-21000	-27800
1982	5200	7700	-7900	68700	9800	-13090	-15000	-8900	-24100	-7500	-5300	-11500	-1800
1983	-4700	21300	14500	4200	37400	-69500	30200	-39300	10800	-2000	-8300	-3800	-9200
1984	22400	3800	-8400	29700	-9800	-5500	14200	13500	-3600	-46600	16700	25900	52300
1985	-28600	-200	20800	3100	24100	-23400	-4000	-11900	-21600	15400	10900	21500	6100
1986	-14800	3600	-19300	30700	-9900	-39500	53900	-12500	-1500	-35800	6000	44600	5500
1987	-42100	-5000	9400	25500	33600	0	-32800	-8600	-2200	6600	-40900	31800	-24700
1988	-22400	-400	13700	58400	-11200	2400	-19000	-7700	-6000	-21000	-3100	10200	-6100
1989	-10500	-14500	26100	31900	10600	-600	-14400	-17200	-9300	-9600	-12400	3600	-16300
1990	-600	-3600	41400	16100	17400	-44100	4500	13400	-28600	-13100	-8600	-1800	-7600

Evaporation from Lake Havasu in Acre—Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1938							5424.4	5123.7	4570.1	8482.4	7922.2	5996.8	37520
1939							15430.7	15259.2	14923.3	11551.1	8192.6	6240.0	128609
1940	6023.1	6994.6	8095.1	10081.4	11939.3	13878.2	15430.7	15259.2	14923.3	11551.1	8192.6	6240.0	126506
1941	5983.5	7253.9	8550.6	10278.4	12810.9	13834.3	15255.9	15180.0	13850.0	10488.7	7433.3	5589.0	119388
1942	5445.0	6325.7	7568.7	9268.3	10337.7	14055.5	14952.4	14725.8	13126.0	10466.1	7347.8	5569.0	104733
1943	5412.4	7176.8	7639.8	9725.4	7599.2	7267.7	11528.7	9768.6	11569.5	12198.8	8751.4	6094.7	144327
1944	6441.2	8043.0	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	8851.7	6623.9	143528
1945	6471.4	7931.1	9334.3	11284.0	13622.0	15889.8	17655.3	17459.1	15889.8	12673.3	8696.8	6621.4	143766
1946	6453.0	7786.6	9416.2	11574.0	13731.9	15889.8	17420.4	17459.1	15889.8	12751.1	8785.0	6609.2	144599
1947	6516.8	7825.8	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	9023.8	6866.0	144618
1948	6669.8	7945.1	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	8891.2	6729.6	144317
1949	6556.6	7858.5	9330.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	8812.8	6866.0	143972
1950	6339.4	7739.3	9322.8	11574.0	13731.9	15889.8	17655.3	17459.1	15830.0	12751.1	8977.4	6838.9	143893
1951	6355.0	8043.0	9416.2	11574.0	13731.9	15889.8	17655.3	17044.8	15435.5	12751.1	8977.4	6866.0	144576
1952	6664.8	8043.0	9294.2	11574.0	13731.9	15889.8	17655.3	17369.3	15696.4	12505.6	8804.1	6644.1	143525
1953	6441.2	7893.8	9319.6	11574.0	13731.9	15889.8	17655.3	17369.3	15696.4	12505.6	8804.1	6644.1	143525
1954	6471.4	7968.2	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	8905.3	6842.5	144555
1955	6630.9	8003.7	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12751.1	8991.4	6824.1	144817
1956	6641.8	8029.4	9416.2	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12664.5	8962.6	6783.6	144698
1957	6587.4	7847.1	9385.6	11574.0	13731.9	15889.8	17655.3	17459.1	15889.8	12120.6	8519.5	6420.0	143080
1958	6250.0	7552.3	9080.8	11498.5	13606.5	15609.0	17178.6	16775.0	15053.7	12174.7	8353.4	6378.8	139511
1959	6069.9	7420.0	8808.0	11199.0	13592.2	15832.7	17208.3	16778.1	15001.7	12120.6	8428.5	6428.8	138888
1960	6245.1	7540.5	8982.9	11462.3	13496.8	15387.6	16890.8	16368.4	15008.9	12095.2	8506.3	6475.9	138466
1961	6197.8	7560.4	8810.6	11188.7	13284.5	15519.7	17312.3	16652.6	14993.0	12022.1	8452.6	6442.7	138437
1962	6236.5	7445.4	9013.4	11214.4	13450.7	15550.4	16939.8	16798.4	15207.3	12016.3	8516.2	6390.2	138779
1963	6360.5	7418.5	8913.9	11464.4	13494.0	15502.9	17034.4	16824.9	15165.8	12046.5	8482.4	6380.1	139088
1964	6203.3	7312.7	8888.2	11300.4	13506.0	15528.1	16673.3	16635.3	14807.9	11954.4	8433.5	6346.9	137590
1965	6256.1	7470.8	8824.4	11379.6	13682.6	15387.6	16977.7	16470.6	14857.7	11970.8	8416.9	6375.6	138070
1966	6214.4	7304.4	8707.0	10867.9	13494.0	15473.4	17067.5	16546.8	14917.5	12041.9	8441.0	6485.3	137561
1967	6202.1	7513.9	8917.3	11308.5	13522.8	15683.9	17178.6	16569.0	15122.8	12040.7	8430.2	6369.9	138860
1968	6244.5	7426.7	8863.2	11365.4	13563.6	15788.8	16909.7	16569.0	15053.7	11931.0	8446.8	6405.4	138568
1969	6264.1	7483.5	8877.9	11353.3	13573.1	15783.3	17130.2	16643.2	15004.6	11970.8	8379.4	6365.4	138829
1970	6150.7	7573.6	8877.9	11367.5	13618.5	15719.9	17145.8	16739.0	15128.5	12070.9	8509.6	6373.1	139275
1971	6236.5	7463.4	8804.5	11324.8	13696.8	15797.0	17432.7	16887.1	15008.9	12033.7	8556.4	6420.0	139662
1972	6239.0	7525.7	8956.5	11353.3	13644.6	15755.7	17324.7	16845.2	15261.4	12120.6	8497.2	6391.5	139916
1973	6214.4	7556.7	9006.6	11363.4	13713.4	15722.6	17318.5	16795.3	15111.3	11872.3	8332.4	6382.6	139390
1974	6211.3	7456.6	8965.0	11373.5	13613.7	15703.3	17287.5	16759.4	15085.4	12011.6	8503.8	6408.6	139380
1975	6174.3	7556.7	9000.7	11442.2	13618.5	15739.2	17113.0	16778.1	15092.6	12203.4	8452.6	6337.3	139509
1976	6218.7	7555.2	8871.8	11401.9	13630.4	15639.5	17318.5	16778.1	15248.6	12073.2	8506.3	6415.6	139658
1977	6250.6	7480.5	8908.7	11302.4	13644.6	15620.1	16909.7	16543.6	15404.5	12256.0	8422.7	6571.0	139314
1978	6239.0	7573.6	9021.0	11365.4	13654.1	15689.4	17183.3	16706.1	15183.0	12120.6	8523.6	6441.4	139701
1979	6294.6	7607.3	9011.7	11349.2	13635.1	15780.5	17209.8	16778.1	15223.0	12090.5	8559.7	6439.5	139979
1980	6178.6	7417.0	8738.5	10820.1	13274.7	15137.1	16758.3	16583.2	15194.4	12092.8	8556.4	6454.0	137205
1981	6336.4	7176.8	8810.6	11276.9	13374.5	15420.0	16857.2	16418.0	15045.0	12063.9	8479.1	6571.0	137829
1982	6303.7	7575.1	9051.4	11494.5	13689.7	15851.9	17059.6	16782.8	15240.1	12041.9	8580.9	6397.2	140069
1983	6246.4	7589.0	8816.7	11544.5	13731.9	15805.3	17330.9	17001.7	15131.4	12055.8	8488.2	6385.8	140127
1984	6174.3	7603.0	9024.4	11136.0	13663.6	14825.5	16957.2	16142.6	14850.3	11893.5	8347.6	6327.1	136945
1985	6284.2	7605.9	8832.2	11167.0	13128.5	15112.7	17017.1	17037.1	15455.2	11865.2	8535.1	6653.8	138694
1986	6292.1	7586.1	9058.1	11166.0	13539.6	15339.5	16980.9	16605.3	14799.1	12055.8	8620.8	6690.9	138734
1987	6412.0	7758.0	8919.0	11281.0	13263.7	14778.5	17278.2	16893.4	15353.7	11907.6	8476.6	6724.1	139046
1988	6280.6	7536.8	8904.4	11210.3	13703.9	15857.4	17113.0	16789.1	15248.6	12311.7	8377.7	6573.5	139907
1989	6250.0	7533.8	8937.8	11574.0	13608.9	15780.5	17241.0	16930.6	15323.9	12055.8	8506.3	6535.8	140278
1990	6285.4	7472.3	8972.7	11357.3	13601.8	15730.9	17256.5	16798.4	15155.8	12051.1	8426.1	6433.9	139542
1991	6246.4	7505.7	9139.4	11397.8	13731.9	15272.8	17040.7	17058.6	15119.9	11981.3	8407.7	6385.8	139288

Flow Gains from Davis Dam to Parker Dam in Acre—Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1906	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1907	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1908	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1909	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1910	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1911	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1912	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1913	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1914	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1915	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1916	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1917	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1918	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1919	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1920	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1921	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1922	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1923	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1924	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1925	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1926	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1927	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1928	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1929	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1930	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1931	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1932	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1933	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1934	-4832	-10091	-21158	5213	7068	12622	28352	39689	28819	16098	-6989	-7554	87237
1935	-7157	-2362	-25144	25056	-15763	3046	4544	34964	1017	6439	-10881	16822	30582
1936	-8576	-2227	-35988	6032	383	-5384	6883	43918	5967	14801	1781	11814	39403
1937	-8388	-32795	-28662	11603	-1396	-1422	15757	37977	15633	15904	-1759	1125	23576
1938	-10042	-17055	-46304	1634	-6348	-10729	-38677	33030	10433	5085	-51138	533	-129576
1939	19549	15229	-17849	6888	15126	30714	31362	65887	109208	21242	-14289	-9420	273648
1940	-35698	-18772	-41234	4389	11262	3180	19584	40423	22487	665	-21617	-29439	-44770
1941	-9940	-21088	-50822	-8233	4722	45982	47022	23224	21830	-37891	-128978	-127350	-241522
1942	-14903	8317	-7418	4335	-6389	35068	69700	58908	34144	3738	-36348	-24778	124374
1943	24152	8020	-16294	4717	18092	43056	78811	58638	22184	-5238	-41705	-45524	148909
1944	-10886	22531	-28961	6875	21070	21019	47208	39982	26985	6661	-44940	-30229	77316
1945	-1913	-391	-22863	18461	27630	40126	51144	68527	48359	49403	-19301	-10411	248772
1946	-2217	8212	2286	34575	16751	35698	38124	50434	29351	26825	-14009	-14446	211584
1947	-20827	-22482	6486	19171	14574	17386	30711	61462	43207	23747	-15754	-28507	129175
1948	-30072	43333	2643	-10204	29895	26533	40678	54031	35243	7845	-27303	-28210	144413
1949	-7295	-7020	-3080	9846	20798	23889	29214	51551	32818	-9248	-34920	-36468	70084
1950	3311	-5292	8169	4049	32492	19701	57177	-11723	35860	39520	-8795	-5962	168509
1951	-10876	-20128	-49276	25042	-7815	51117	14569	53343	-5314	-12081	8297	-45451	151166
1952	-46472	-23815	-17093	-11574	10267	30350	42907	35828	24236	-18307	4982	-9272	22036
1953	-17969	-13946	3247	11099	21747	30322	40712	38005	45987	26423	-8831	-15088	161708
1954	-30887	-2399	-27291	-17771	-15036	-6381	6374	13523	27822	17559	-59	-14831	-49378
1955	636	3390	-33782	2669	-1298	-21566	31042	52029	24136	8791	10842	23150	100057
1956	1667	-24655	-53835	4386	-18531	-11029	24643	26152	41099	-32152	-3818	5175	-40896
1957	-2132	-23137	-25460	8561	11813	-3630	25412	43562	15834	7143	-69886	-15437	-27357
1958	10433	-10014	-33044	-18757	28454	26370	-2220	46364	18526	18970	-34556	2779	53306
1959	-12422	10523	-31255	2457	-4346	-14997	35369	71735	24791	15013	9516	-8570	97814
1960	-17873	-10247	-34962	46363	16105	32592	66383	78766	50051	26716	2412	48686	304992
1961	-19079	-23277	-33769	26563	-25523	-276	74071	65284	1498	10663	28450	21937	126541
1962	-5834	-26934	-43673	18850	-10950	25387	31722	64562	50400	-1775	29090	13462	144308
1963	-22864	1354	3505	8127	9865	-6769	18203	38087	36934	22976	-2221	-3239	103958
1964	7523	-33177	-36845	15103	12889	28016	20953	30356	7944	36804	10507	-5529	94543
1965	5354	-22694	-40467	-27756	-12096	-16220	-21652	21437	785	1275	-6791	1632	-117203
1966	-5836	-37530	-60886	-22928	-24113	-6116	19449	17055	6195	-337	-379	25141	-90286
1967	164	-33778	-55231	-28761	-37535	-6400	17826	14942	26437	13156	15999	-21088	-94269
1968	-26293	-41234	-20958	4367	-7995	-219	41487	23946	16844	21169	1508	-4538	8085
1969	4887	-9728	-38397	-2717	-1164	-16537	17674	3801	22417	7620	-1536	-14569	-28250
1970	-2254	-27343	-28331	-26196	4816	-5477	37994	47679	13157	24610	15949	-8007	46599
1971	-3226	-19257	-41048	21950	34290	41161	27206	71700	50869	14731	490	-55	198812
1972	-554	-11437	-19162	12422	4154	-20705	52156	36446	13303	-2566	-5207	-19987	38857
1973	-15529	-19463	-41414	-14217	22549	4331	22129	20302	20101	15297	9195	-9129	14151
1974	-36015	-33000	-5913	-1243	26140	11894	19925	-7913	-15397	15665	-9412	-9767	-45037
1975	-8932	-7045	-19966	6894	8171	23454	32507	19126	21124	24849	-2950	-15155	82074
1976	-10027	-23447	-53970	-18765	-5646	20971	10722	31507	73894	6849	-19525	-16892	-4319
1977	-5215	-12890	-2159	12522	24735	-334	16784	44337	40095	19768	953	4652	143450
1978	13778	-18487	-25564	-5735	-15120	-10802	5292	13177	6239	33412	-6474	-11259	-21543

Flow Gains from Davis Dam to Parker Dam in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	14098	-16902	-1215	5202	1789	18058	31170	10581	2426	-2356	-4327	-11135	47389
1980	4835	-15700	1516	-6446	4522	38041	72848	14965	34583	25203	-5646	8943	177662
1981	11308	-4054	-19813	14209	11375	-237	1585	22158	46539	13679	-2252	-6206	88290
1982	962	-17246	-26690	238	43609	3049	-987	53603	30347	20712	11152	5735	124484
1983	-26398	29562	-11770	-14808	20539	-69951	-39815	42344	64875	35518	-1143	-3508	25442
1984	-20631	-21468	2868	17698	5135	23324	58664	103126	70334	106362	32713	30331	408456
1985	43735	9703	45559	60178	31747	41423	50044	31033	38592	51775	40266	10926	454981
1986	30093	10905	-1155	5103	-19732	46353	39161	67225	37418	37419	26666	-564	278894
1987	15237	16420	10110	7056	34015	51077	38228	51098	54442	20566	10084	18983	327316
1988	38461	-9282	-5600	11687	17860	31507	27407	62208	22908	42726	14959	-872	253971
1989	-689	478	14510	16441	6149	5183	22184	-1836	27867	42023	3150	-6381	129079
1990	-47	15380	17053	32401	52781	44860	55219	65588	46110	57402	39943	29724	456414

APPENDIX 5B

SALT MODEL STATIONS

DAVIS DAM TO PARKER DAM

Colorado River below Davis Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	584914	334167	663573	507652	507547	633314	342974	248575	276727	377616	461627	305854	5244541
1936	354080	403122	650612	613363	529658	445609	412632	331280	304368	254433	234232	422159	4955549
1937	280704	308119	529324	577640	580201	620310	717267	656827	570777	464837	385224	353553	6044783
1938	346001	345389	451838	584317	589536	653638	676841	564294	495211	665235	661068	325347	6358727
1939	648132	1265424	682648	642520	625798	665218	724641	706238	693320	649502	725840	719906	8749187
1940	710054	495984	680155	676473	645135	645372	746170	750895	748287	827364	820735	849655	8551278
1941	647414	579540	671665	572508	1512388	1854325	1020513	1366760	1444370	1556511	1746942	2035481	15008416
1942	1969705	1488805	1408287	1269348	1348201	1539020	1236140	834445	968493	1073082	1014340	1007824	15157690
1943	958870	727698	921863	860285	962666	973744	1002281	937302	933504	1063561	1038449	1111708	11491931
1944	1134623	1200183	1243379	1126690	1165642	1034754	1023470	1095227	992310	1139662	1181575	1139503	13477018
1945	1138901	1035450	1187115	975975	955339	931475	811317	792883	776551	940621	956024	961123	11462776
1946	962867	986590	890661	784408	868197	763243	767273	666860	690054	772356	707972	777200	9637682
1947	882142	809710	893351	835461	968936	881922	889324	791649	777648	759446	819466	972675	10281732
1948	1082184	1047080	1064430	1137066	1046275	950246	987811	827956	828357	743346	909487	1034031	11657637
1949	1012105	1007613	1091021	1023983	883351	848967	849732	840212	876035	921486	868381	1094602	11317489
1950	866520	1031113	1054760	921690	955280	824000	775960	691410	606570	618220	498010	512930	9356463
1951	512660	530530	708940	790510	657370	847210	902560	816020	697960	719500	563620	690100	8436980
1952	946530	1155530	1253160	1306600	1397710	1384550	1103170	1071260	1087990	963270	868730	1064040	13602540
1953	1012000	1040030	900350	851340	910890	924030	975100	934430	753840	574430	737860	583870	9934170
1954	730140	680950	742240	883430	1027900	914250	989070	976100	780300	624610	661050	676110	9686150
1955	733450	697040	840140	911800	918470	1047790	1082330	885310	813580	584530	455010	319040	9288490
1956	375490	485050	822470	892860	823790	1040700	1017280	985320	750300	582970	426480	359490	8562200
1957	322350	501440	763720	900680	760600	948430	997720	872740	741770	580380	896030	1021110	9306970
1958	1201800	651880	1280150	1295480	941120	832000	877640	766240	661680	563780	601200	678280	10351250
1959	634720	570450	703600	866160	700950	820870	883630	745070	650610	540210	399120	390510	7905900
1960	423660	503080	745520	824160	751740	932520	950780	823240	666800	524350	448450	303000	7897300
1961	446320	561890	856440	807120	823730	929550	889880	745830	700000	465550	366550	239130	7831990
1962	427530	426800	766880	874710	794200	877920	921620	833870	715600	530660	488980	347260	8006030
1963	468840	582060	812410	800560	772180	928990	928080	824710	648580	482170	394530	342320	7985430
1964	416260	571420	739680	765300	691410	816510	946940	831710	696600	487920	368020	355670	7687440
1965	401030	564200	851790	714390	860340	934880	1061980	1039050	793830	541300	317000	177210	8257300
1966	185270	581150	804070	973120	904110	1031660	1037810	946680	747890	450000	349340	326680	8337780
1967	402420	574170	782750	756110	768170	867980	854050	812790	576840	489880	326070	206710	7417940
1968	404070	531540	744140	810310	740940	837730	808840	786670	685490	488920	414340	419650	7672640
1969	342560	642500	818420	883810	781710	843830	885500	865280	604710	522490	333980	421310	7946100
1970	463800	632870	782330	985290	795730	879410	872200	740460	626370	553040	423100	441500	8196100
1971	461800	657730	914120	935630	789380	860450	970040	729610	660260	500300	432000	434590	8345910
1972	476300	659580	904380	917740	833940	852450	944880	769880	670320	301680	378300	462100	8171550
1973	474210	447650	674380	918650	787850	805980	919470	805420	735730	561610	406130	413370	7950450
1974	357960	615890	800560	1004320	824880	891330	915380	886580	712230	477190	316200	378570	8181090
1975	415360	536650	752520	901870	813360	742510	858100	817890	685260	500310	377490	387460	7788780
1976	390350	415980	869760	862100	765180	772550	818460	865510	428370	374370	267940	423680	7254250
1977	283380	632550	757780	902010	712840	852640	985220	702900	511410	422600	380330	398110	7541770
1978	192930	478730	737970	905090	711060	845100	910130	805270	628060	362324	315897	300061	7192643
1979	177528	364640	595257	906396	916400	911158	1031095	922700	780864	508673	419093	397339	7931143
1980	369768	330131	982000	1229964	1041480	1239000	1244400	1242300	1080983	921393	827912	780943	11290274
1981	501858	487296	796855	977760	787931	956186	935390	958342	610421	365304	294314	309132	7980789
1982	431638	546915	714400	1014750	768339	723045	848346	663754	484288	399840	237500	284501	7117316
1983	1093557	423297	535065	1101304	1154998	1608893	2496429	2403046	2240882	2087685	1551331	1394652	18091139
1984	1624712	1533971	1566180	1540575	1563693	1790015	1859805	1549287	1384142	1256124	1287707	1282276	18238487
1985	1201078	1218950	1089827	1007019	1181906	1250389	1312794	1317360	1091331	837489	785241	925554	13218938
1986	1030707	832484	1149021	1106118	1472083	1302183	1296614	1169458	1047232	835334	807452	997896	13046881
1987	1056988	872200	817120	751605	697526	727376	779782	789184	633963	533326	319624	529458	8508153
1988	495994	470535	698211	707884	698892	752770	875185	757096	542515	413208	364108	384113	7160511
1989	295551	431156	725925	841880	730309	783943	882864	780450	604423	481105	338505	356830	7252942
1990	357657	479137	765078	823566	824704	859475	924135	826521	584128	483744	384908	390383	7703437

Colorado River below Parker Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	600647	430680	656577	524642	462960	609936	325635	246631	267135	376172	458605	335008	5294618
1936	353584	393379	610159	612221	509513	409589	393091	339404	296707	259168	237143	258995	4672953
1937	283347	485166	531117	581452	558726	579518	691703	662462	564985	472075	388353	361286	6160190
1938	341623	332660	503133	581513	564455	602997	596974	567813	486384	502390	367304	335628	5783074
1939	594225	1311045	683407	617226	594249	623966	676900	676001	944688	671755	676809	700768	8782039
1940	729161	486910	585981	690870	556291	644032	693547	684869	724637	857698	785972	911096	8351064
1941	677046	631587	834081	669587	1482810	1759748	1064871	1310617	1476781	1530804	1653136	1982189	15073257
1942	1955218	1485369	1499280	1146137	1619618	1557444	1231772	883328	786025	822557	946977	1057243	14990968
1943	902530	690216	832658	835059	912155	920106	1020825	944370	948731	1073148	1032104	1088970	11200872
1944	1139785	1151761	1264045	1144073	1097548	951378	987399	1079568	1022596	1089606	1097181	1135681	13160821
1945	1130411	1008299	1170947	929212	913264	864666	844740	689263	710982	929746	959887	1007031	11158448
1946	943281	950504	876784	769370	808036	694291	729962	660509	668778	697977	725274	800284	9325050
1947	874198	837363	881836	748897	851667	808417	794755	838548	745190	744107	751018	954020	9830016
1948	1054400	1014596	1001130	979365	1016440	899859	989539	878029	819935	765199	871850	1008723	11299065
1949	1036439	1008073	1075862	983213	861200	814431	812899	849534	902921	923642	864869	1025472	11158555
1950	923556	894620	1066141	873827	913370	757621	746474	713418	620079	589021	489157	493788	9081072
1951	482876	447941	671321	716093	623746	792912	870453	861347	657286	649233	504752	637162	7915122
1952	1003076	1022545	1371454	1255298	1387590	1312357	1084295	1062761	1017084	892667	838984	1207521	13455632
1953	1127860	950823	903266	765890	872628	863259	989303	944977	729501	561404	468822	558619	9736332
1954	718870	632681	776455	850056	985963	856827	970565	954898	733304	618596	621872	648940	9369027
1955	736512	623788	805592	846609	880552	991597	1077825	964192	786859	559451	410429	314572	8997978
1956	350765	387623	710842	786624	771371	916729	1009740	953196	738479	573534	358497	308131	7865531
1957	255595	378673	651202	802461	695551	831725	945809	861648	687512	514054	774425	937084	8335739
1958	1173057	514855	1192450	1149445	850305	723208	785827	729626	601230	515817	525961	639852	9401633
1959	580444	515426	617820	748412	621741	697275	830099	739179	574505	474108	341920	349196	7090125
1960	375734	410663	694948	760049	690899	813875	912083	802970	590638	454456	368128	300261	7174704
1961	358201	430354	712538	697525	671406	792438	868445	680221	583386	393147	304252	191758	6683671
1962	318693	362034	681927	756327	689309	779916	882550	820975	640726	479666	438213	286759	7137095
1963	348371	458415	708811	659178	668611	788783	864707	751677	574182	388256	296907	274830	6782728
1964	327046	431270	575228	592015	554084	700548	819456	756907	572662	400808	273516	246518	6250058
1965	291103	427158	651618	604787	644622	774830	926862	946254	653138	425567	230704	168853	6747496
1966	156954	443377	661836	792947	744338	836375	947854	876832	581742	347479	250346	315619	6955699
1967	309205	427083	657749	593919	626875	687680	779517	692547	456867	410410	232661	161007	6035520
1968	323611	417636	645560	671835	604347	692854	752021	702184	568242	397561	305405	309579	6390835
1969	252996	451100	717242	725379	639554	695619	794106	749075	484036	439009	226374	320708	6495198
1970	383060	456639	674918	778294	684574	733161	814567	687711	541329	467094	317180	343327	6881854
1971	350252	505387	764588	776727	684788	775676	896765	702725	570142	408829	314078	370898	7120855
1972	362790	491281	757551	779838	705784	671213	858481	704795	558992	217790	276239	394159	6778913
1973	359199	347973	597761	758320	683747	650267	807899	696481	608734	460960	300887	330232	6602460
1974	236187	467819	673292	839190	732256	757966	827060	771554	584059	379662	268907	310883	6848835
1975	348463	432709	662501	763504	744821	666133	780424	756747	613162	448793	319921	342827	6880005
1976	338023	346512	764226	725820	651393	674056	734123	781349	368191	325803	231901	338428	6279825
1977	245834	477454	648238	765281	608570	699941	880117	631462	425310	324205	269852	293841	6270105
1978	131830	376274	642591	787621	635562	712067	841144	735262	536522	342674	254678	261248	6257473
1979	146422	323726	539775	737072	748736	811902	908804	782194	686135	481220	353710	338101	6857797
1980	300054	376902	947284	1087630	923066	1137860	1219814	1145957	940632	834300	756948	704883	10375330
1981	455953	446671	683028	874875	660548	795986	905257	847141	540297	313495	226705	289465	7039421
1982	326887	477526	635060	832024	641690	596661	733565	620477	489989	347764	211734	258327	6171704
1983	980794	390489	549729	998633	1078049	1530963	2283192	2276776	2081498	1946235	1380513	1284979	16782750
1984	1490092	1422099	1504228	1386562	1399589	1613274	1682024	1531054	1320024	1249000	1194000	1200000	16991946
1985	1203000	1153000	1072000	932000	1068000	1196000	1227000	1044000	937000	763000	702000	842000	11613000
1986	971000	744000	1048000	957000	1315000	1184000	1106000	1040000	937000	763000	702000	842000	11613000
1987	972000	764000	682000	587000	542000	582000	627000	634000	517000	422000	256000	404000	6989000
1988	427000	366000	535000	523000	552000	564000	663000	601000	425000	334000	263000	262000	5515000
1989	207000	333000	530000	636000	534000	557000	634000	530000	442000	384000	241000	227000	5255000
1990	271429	392877	561913	666949	676921	675382	707986	658063	478043	406538	324241	309094	6129436

Bill Williams River below Alamo Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1906	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1907	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1908	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1909	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1910	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1911	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1912	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1913	6478	22959	11814	3937	1643	1388	1388	5086	11472	1306	1143	2903	71514
1914	7331	20600	2767	1224	1142	1224	1224	1224	1142	1569	1306	1469	42222
1915	11305	23688	4505	1495	5063	4036	1716	1469	1569	898	1061	979	57784
1916	27700	20425	21223	8234	2700	2005	2148	6617	13473	1142	1061	3356	110084
1917	4095	18405	12873	5277	1569	1142	1224	4036	8990	898	816	2700	62025
1918	3356	15004	10955	4331	1224	898	979	3292	7628	1862	1643	5171	56343
1919	6239	18600	19484	7711	2496	1862	1934	6142	12622	2358	2077	6142	87667
1920	7374	23350	23688	9027	3032	2288	2427	7288	14871	816	734	2358	97253
1921	2967	13569	10072	3854	1061	816	816	2967	6936	1934	1716	5277	51985
1922	6430	19300	20156	7915	2564	1934	2005	6335	12936	1569	1387	4331	86862
1923	5331	23943	16237	6663	2005	1569	1569	5224	10987	490	490	1569	76077
1924	1934	10005	7374	2564	653	490	571	1934	4843	1142	979	3228	35717
1925	3976	17632	12466	5063	1469	1142	1142	3915	8694	1387	1224	3793	61903
1926	4619	20932	14278	5896	1716	1387	1387	4562	9870	3732	3356	8990	80725
1927	10535	39750	25350	12810	4787	3670	3854	10437	23452	245	163	653	135706
1928	816	5224	3608	1142	245	245	245	816	2218	979	1061	898	17497
1929	898	898	979	816	898	816	734	2632	9099	816	898	1061	20545
1930	816	816	5117	734	898	816	734	1643	8076	816	1061	816	22343
1931	816	10923	898	1569	1142	816	898	24845	7114	1142	979	7996	59138
1932	3545	67325	10923	1142	898	816	898	1142	734	979	1061	1142	90605
1933	979	898	1306	734	1061	734	653	653	653	653	653	653	9630
1934	653	571	653	571	571	490	490	2427	898	490	490	1569	9873
1935	6239	24052	11997	1142	1142	1061	979	1862	2427	898	898	898	53595
1936	898	979	816	734	653	653	3545	4505	1061	734	816	1495	16889
1937	1934	52275	12591	2358	1061	979	1061	979	1643	1387	898	979	78145
1938	898	898	25125	979	816	898	898	734	734	734	816	1643	35173
1939	816	1224	898	734	653	653	653	816	54900	2148	1224	1224	65943
1940	3250	9741	2011	1707	372	243	201	202	653	1888	591	21201	42060
1941	20527	27124	50375	32050	2599	484	1762	5753	9554	1281	1615	3109	156235
1942	6795	2715	2582	1330	441	369	304	220	243	269	329	356	15953
1943	2284	1150	7556	1387	252	294	196	1584	458	772	464	963	17360
1944	1081	17346	23193	2481	543	272	225	201	325	286	441	472	46866
1945	575	660	26071	3460	400	249	245	683	245	359	431	1526	34904
1946	1135	865	816	1436	375	254	728	795	275	497	630	7123	14929
1947	1781	979	816	523	428	370	375	955	889	390	489	510	8505
1948	512	581	628	494	422	310	426	1243	265	369	434	681	6365
1949	4603	11958	10145	1641	508	357	256	330	290	1203	441	463	32195
1950	472	512	573	460	379	270	698	356	969	324	366	451	5830
1951	500	437	450	447	404	259	236	23625	2788	2084	1114	11879	44223
1952	16813	2591	23771	6413	2408	2113	332	330	322	361	459	567	56480
1953	709	685	754	519	440	344	348	625	295	346	415	445	5925
1954	610	589	22373	1817	448	266	365	863	392	300	393	467	28883
1955	532	492	477	428	329	230	2880	12142	418	437	499	594	19458
1956	943	764	589	501	383	314	416	283	258	319	425	494	5689
1957	873	1872	655	604	402	323	387	2302	316	1471	3009	615	12829
1958	632	6730	12854	8649	657	489	450	293	772	643	712	672	33553
1959	663	2642	947	540	392	250	165	3805	259	264	395	2635	12957
1960	3975	3515	5985	619	309	175	193	171	218	267	343	440	16210
1961	460	459	481	388	262	206	157	1448	484	244	249	330	5168
1962	500	5290	2027	685	370	273	220	233	2982	429	396	568	13973
1963	652	615	680	561	413	225	159	9463	5043	655	2191	1050	21707
1964	819	863	999	1045	545	248	216	10842	1826	490	570	685	19148
1965	864	3664	6633	24423	1057	392	308	240	260	327	14803	30473	83444
1966	8468	3461	3127	1302	354	259	204	849	271	287	346	21417	40345
1967	1318	892	1208	772	505	361	348	1731	3307	503	393	10060	21398
1968	12179	7740	1376	468	312	184	590	387	377	328	323	466	24730
1969	6806	8571	6301	392	126	0	0	0	62	55	75	289	22677
1970	451	370	8877	270	276	157	178	1919	138	441	420	499	13996
1971	473	500	412	103	122	0	0	5719	795	246	279	727	9376
1972	560	565	598	106	124	0	0	268	409	9907	5034	3716	21287
1973	1910	13008	18904	11012	364	39	85	393	464	251	104	225	46759
1974	322	348	505	218	0	0	17	144	44	109	98	59	1864
1975	71	109	236	325	40	27	6	47	2	0	0	120	983
1976	125	6574	6449	4309	17	1073	2131	2272	2081	2348	2354	2615	34328
1977	1428	896	802	951	511	226	588	613	645	545	712	395	8310
1978	185	152	3668	4411	3444	22	15	30	40	2867	6419	6401	27654

Bill Williams River below Alamo Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	4864	10126	12846	3862	11200	10876	8110	16199	14911	12305	10224	14535	130058
1980	6033	23444	45384	20064	14593	2980	27034	19635	32985	10655	396	339	203542
1981	356	297	327	304	1066	1102	9841	11564	10077	511	331	319	36095
1982	258	306	547	416	469	468	464	410	430	417	417	480	5082
1983	406	849	63408	4371	365	346	390	2184	3279	3312	3249	2540	84699
1984	3647	6980	49937	377	534	527	510	598	505	5727	5297	4743	79382
1985	557	519	35561	2660	26	9359	10769	10663	9938	11520	10974	11183	113728
1986	12546	7773	8328	9050	7258	5830	3242	3481	9116	4290	640	1302	72855
1987	476	595	491	498	759	954	910	1906	2256	2102	1901	2057	14905
1988	1657	6674	3213	507	554	1992	535	1362	8632	990	577	1293	27986
1989	452	555	449	492	550	453	421	472	550	581	589	1289	6853
1990	414	540	448	318	445	345	317	378	371	495	364	1136	5572

Export to Mohave Steam Plant – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1967	0	0	0	0	0	4	5	5	5	5	5	5	32
1968	5	5	5	5	5	5	5	5	5	5	5	5	57
1969	5	5	5	5	5	5	5	5	5	5	5	5	60
1970	7	8	7	7	7	7	5	5	5	5	77	27	167
1971	157	377	438	372	655	616	687	274	551	700	519	156	5502
1972	309	271	1544	991	1021	1297	1193	1273	1294	578	263	908	10944
1973	1127	595	591	842	843	965	1410	1061	1551	1062	949	776	11773
1974	984	773	822	1025	1274	847	1111	1373	1262	1093	1012	1037	12613
1975	1266	854	1054	700	1097	1419	1519	1231	1081	1222	1332	841	13615
1976	1016	1032	171	693	1457	1541	1724	1388	1366	986	1095	1247	13716
1977	1282	774	759	1169	1241	1341	1299	1364	1358	1001	1053	569	13211
1978	530	664	547	527	633	819	934	830	856	891	631	571	8434
1979	769	948	616	1023	876	836	1332	1414	839	1293	1101	650	11698
1980	665	478	600	1199	1068	1188	1073	981	1309	313	763	591	10228
1981	982	1104	953	1056	974	1420	1186	1125	1148	1253	981	1141	13323
1982	1610	1311	1719	1104	1481	825	1494	1653	1479	1337	1357	1282	16650
1983	768	828	834	807	1499	1479	1498	1482	1509	683	1011	1306	13703
1984	1179	1199	1401	1036	984	1226	1490	1250	1129	549	332	276	12050
1985	780	959	1169	938	626	129	2	3	0	41	6	184	4837
1986	741	796	964	999	1110	938	996	829	962	660	249	683	9928
1987	765	854	970	705	599	916	1252	1137	1158	550	453	911	10270
1988	1003	739	586	907	1243	1292	1443	1341	1019	1266	549	745	12134
1989	885	920	1191	758	1124	1358	1198	1169	784	737	531	480	11135
1990	771	1077	1033	765	873	1029	1339	1522	1583	1157	1783	1556	14489

Export to Central Arizona Project – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1985	0	0	1014	895	2955	1238	3002	9480	3679	1714	808	569	25354
1986	11	12	870	7072	7112	9646	16340	23279	10258	0	0	1371	75980
1987	2163	6558	14258	22719	24516	34665	51730	49387	26715	10265	4516	9612	257104
1988	6890	11358	30381	26021	36842	58073	79339	58731	27647	10228	11400	10787	367606
1989	6819	8998	50094	47569	52591	93225	115316	110473	49671	15857	12209	16906	579729
1990	12523	14054	70893	66716	68176	119192	106981	109705	52894	19127	15347	13884	669491

Export to Metropolitan Water District – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1939	5453	24490	7257	7378	11699	12560	12899	27120	19167	13202	25845	13971	181041
1940	-14423	-1904	24765	8823	11882	12937	15011	6907	14023	15321	11850	0	105193
1941	5175	184	2548	4062	2913	4216	1356	3424	4687	381	1624	1456	32025
1942	2927	26	0	2845	4131	0	0	0	0	13252	6995	0	30177
1943	2427	0	329	3636	7552	10734	1664	1831	1113	1397	1841	0	32524
1944	2030	4323	9512	0	1259	1965	1107	6874	4994	4863	5617	6389	48933
1945	0	1815	0	7974	8790	3285	1106	12230	8382	7704	1832	0	53117
1946	2834	3121	4242	1565	11706	9716	1040	0	15948	23800	5	0	73977
1947	0	0	416	4442	14110	23568	17254	0	0	6549	2088	11034	79460
1948	9848	11326	11363	23432	23988	15681	11927	12625	22156	9044	9970	12273	173634
1949	10744	10368	11098	12819	11701	15122	12123	11699	21222	8730	9565	11917	147107
1950	11083	10526	11878	11322	20367	9688	18889	15867	11690	12690	9978	11556	155534
1951	11802	9875	12679	19115	11730	23066	23961	22507	22776	21855	21073	11507	211146
1952	11802	11100	12511	12321	16424	13142	11135	10619	18725	13687	9743	9212	150421
1953	0	5074	20028	25042	21555	11995	20742	29997	30390	21888	8831	11688	207228
1954	10577	11289	23952	21902	30273	22762	35333	36090	34729	33960	34580	36441	331887
1955	25374	31276	43074	38749	37983	43193	36689	41039	40303	44274	39803	39945	461701
1956	33039	36468	39871	42890	37985	41663	42914	52003	55476	58614	52977	52979	546882
1957	50688	45394	56404	47764	62386	59847	59980	59058	51071	55113	51904	25635	625244
1958	24111	37116	44230	28319	41845	43033	46305	46133	39701	41683	35741	35136	463353
1959	46083	20529	49667	53138	59074	59202	58119	59352	53642	60463	52719	39593	611581
1960	59873	41241	55385	60921	69899	76361	79921	87050	84899	89800	70810	46577	822737
1961	80019	72720	95339	93817	96348	92377	94105	93757	91526	92976	72849	79251	1055084
1962	90455	44795	52834	89596	101497	97272	101265	101087	97095	100077	96876	97106	1069954
1963	100638	88313	64436	75093	77863	82526	84075	90771	89415	86001	76172	71566	986870
1964	70703	65185	89856	74206	97402	94966	96977	94564	95841	100096	95041	101001	1075839
1965	98441	72604	107638	106106	112267	111563	106386	115553	109327	114058	104540	75662	1234146
1966	45416	67687	95991	111985	115520	110800	113161	110423	101904	102947	98786	103795	1178415
1967	106376	88105	77400	87259	93377	94345	97871	100014	96877	91287	96653	44561	1074126
1968	66617	69754	80507	94242	105370	101458	102491	105067	101693	105145	101133	107051	1140529
1969	103618	89211	63367	71131	89394	85224	114971	112520	101319	102611	100336	106414	1140116
1970	81949	101116	95523	108802	114572	110990	112386	107837	105166	109907	98768	94552	1241570
1971	101246	85814	105284	108740	111927	108734	110160	109016	104678	110936	105205	86387	1248125
1972	112411	102495	109434	98091	110078	100847	113277	111794	100264	104888	95112	51350	1210043
1973	108729	67325	53961	89186	106219	101318	105361	103277	98752	102357	101295	95206	1133185
1974	96640	43512	98705	100554	104241	100007	100961	99243	95489	102335	51448	78302	1071436
1975	52937	51379	65765	64306	77369	72466	77775	75741	62632	63773	38642	40022	742806
1976	45777	49428	63880	64103	71965	73942	87086	86905	65798	47106	36986	47961	740937
1977	54924	93420	108591	103919	108572	103794	108343	104391	82684	109254	106212	111105	1195209
1978	68549	41616	59735	58568	39449	58244	57195	61402	59107	60098	49241	55214	668418
1979	46969	37582	48234	70938	82251	78018	77100	76819	58402	65641	64280	65953	772186
1980	51677	44977	37785	66401	88510	80409	79311	85289	57317	71500	70105	60621	793902
1981	61211	45538	55823	78801	94884	80689	89449	70619	75370	63768	46807	41055	804015
1982	35781	36723	56273	65349	98868	93525	88873	84597	32221	31304	29622	37970	691106
1983	77787	28019	37236	56671	50639	63324	93845	96024	91905	82257	85363	70751	833822
1984	74848	53464	91605	93394	94313	91338	94165	93730	86610	88252	86849	72836	1021404
1985	66022	64006	81103	82142	92072	85087	86743	86682	80975	82475	80948	75718	963974
1986	60397	72037	80047	80807	83981	80119	81821	81361	79846	82468	79652	82908	945443
1987	79809	73756	77081	80286	77984	81822	78997	80479	80571	77447	73226	74851	936310
1988	74507	64005	75221	74317	73795	73674	76294	78116	69050	74662	72505	74417	880563
1989	68381	67116	71928	71424	76408	75754	81578	78751	79939	83421	72690	86983	914374
1990	93668	77766	82819	81750	91156	86619	87965	94642	87628	82491	88465	96789	1051759

Davis to Parker Export for Phreatophytes – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	4830	8063	15235	21155	25974	26372	22842	17240	13659	10808	5909	3731	175819
1936	3229	6271	11699	18685	27211	29937	28203	23498	16131	9906	4991	2919	182679
1937	2637	5240	10636	19144	30872	43624	51557	43346	30869	16504	7174	3276	264879
1938	2481	5011	9954	18493	31178	43775	48114	38944	26779	15279	6541	3025	249574
1939	2487	5236	11136	18796	31283	44490	51915	44493	34307	17416	7824	3723	273106
1940	2923	5642	11514	19920	33560	47423	55002	46864	32947	18612	8039	3800	286247
1941	2990	5988	12084	20050	33077	46304	53352	42425	29296	16956	7288	3480	273289
1942	2786	5368	10983	18517	31154	43766	50604	43605	30115	17212	6995	3148	264255
1943	2498	4993	10361	17602	29347	41021	47703	41735	29022	16490	6960	3220	250951
1944	2592	5106	10797	18261	30410	42306	48641	41358	28382	16567	7388	3499	255307
1945	2695	5162	10548	17564	29179	41160	47257	39421	26715	16068	7225	3357	246350
1946	2551	5001	10263	17173	28539	40118	46343	40155	28251	16434	7141	3355	245324
1947	2573	5016	10328	17340	28906	40806	47677	41047	27943	15824	6601	3341	247401
1948	2537	4690	9909	16617	27879	39319	45035	38733	26656	14763	6865	3298	236303
1949	2344	4515	9497	16119	26688	37964	42878	36321	25015	14189	6558	3189	225278
1950	2367	4591	9580	15952	25978	36062	41600	36946	26707	15883	6892	3177	225735
1951	2418	4735	9952	16988	27884	39249	45856	39157	27434	16005	6844	3217	239737
1952	2493	4752	10372	17439	28903	39281	42549	35056	23140	12592	5417	3294	225288
1953	2572	4891	10224	17042	27411	38201	44663	38089	26527	15349	6697	3117	234782
1954	2453	5001	10595	17621	28942	40873	47683	41224	28955	16778	7312	3470	250908
1955	2717	5424	11689	19904	32980	47985	54722	47932	33654	19272	8297	3858	288435
1956	2980	5492	11983	20413	33965	48623	56858	48631	34402	20172	8301	3738	295556
1957	2825	5598	11647	19379	31706	44137	51485	44124	30582	17402	7342	3242	269471
1958	2439	4679	9298	15165	24569	35039	40773	35051	24655	14341	6223	2942	215174
1959	2281	4441	9348	15755	25672	36024	41442	35079	24540	14341	6192	2931	218047
1960	1863	3549	10455	16694	26384	40365	43970	37633	27196	14898	6431	2966	232425
1961	2595	4805	9297	16277	25118	39842	43746	36825	24108	14794	5820	2856	226082
1962	2209	4339	7586	18989	23390	35146	42432	39372	27177	15690	7807	3487	227623
1963	1931	5150	8357	12008	24817	28901	37952	31875	23949	13976	5564	2577	197058
1964	1691	3101	6666	11606	20391	29302	36993	31831	23036	16172	5103	3038	188930
1965	2308	4061	7626	12883	22486	29771	40031	35932	22485	16082	6664	2205	202536
1966	1548	3266	8996	15693	24507	32395	37141	32795	22612	11954	5800	2711	199418
1967	1972	3800	7858	9214	19614	24908	32620	28907	19003	12311	5932	1983	168122
1968	1721	3827	7350	10706	19080	26720	30033	25065	19621	11302	5049	1943	162418
1969	1999	2728	5937	11684	20064	25048	31457	30023	19892	9713	4993	2537	166074
1970	1647	3550	6132	9089	19177	26109	31100	26771	17290	9541	4816	2046	157287
1971	1567	3021	6276	9435	14862	23004	28551	22824	16833	8313	3843	1824	140353
1972	1391	3005	7752	9864	15682	21457	26062	20993	14835	7503	3111	1578	133232
1973	1146	2315	3690	7506	15142	20593	23266	19126	13143	7938	3331	1834	119029
1974	1064	2114	4877	7422	13207	19774	19920	17626	13314	7558	3189	1379	111444
1975	1012	1794	3577	5161	11035	15631	18612	16172	11919	6321	2781	1510	95526
1976	1077	2009	3588	9672	11273	14548	16854	14221	9677	5703	2739	1249	92610
1977	1059	2304	3469	7226	9215	17016	19234	16224	11410	7347	3174	1770	99448
1978	1215	2101	4822	6582	12170	18818	21311	17772	12285	8361	2928	1198	109561
1979	938	2073	4549	8416	13728	20247	22386	18239	16373	8653	3079	1803	120484
1980	1636	2838	4568	8947	13245	21656	26220	21629	15461	8734	4225	2384	131543
1981	1959	3211	5962	11872	16509	25016	27572	24612	16717	8193	4522	2235	148379
1982	1567	3278	6041	10401	17390	22610	27445	24584	16598	8324	3821	1856	143916
1983	1798	3363	6281	9092	18797	24892	29868	24266	18110	9763	4143	2113	152487
1984	1773	3006	6860	10061	20676	23560	26650	23277	16325	7554	3467	1623	144831
1985	1431	2569	5648	11080	17711	25032	27567	23600	13622	8719	4386	1937	143303
1986	1986	3138	7298	9735	16770	24499	24497	22949	13623	8538	4025	1880	138936
1987	1337	2964	5518	11365	17157	24909	25498	24040	16941	10905	3924	1539	146097
1988	1430	2975	6041	9909	17055	24195	28046	23444	16404	11576	4138	1926	147138
1989	1442	2809	7098	12775	18340	25929	29922	23378	17534	10236	4835	2249	156546
1990	1891	2961	7533	12431	18799	29029	30936	28592	19780	11013	5153	1841	169960

Change in Lake Havasu Storage Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1938	0	0	0	0	0	0	0	-3167	-1276	150618	259367	-4004	401538
1939	28091	-34612	-10472	12016	-1686	4243	636	0	79418	-36171	2199	1061	44722
1940	-13170	5379	6984	-23166	53295	-73267	-7360	5949	2424	-59307	2455	-16976	-116760
1941	4105	-9124	-13462	-5284	-80633	191324	-40452	-3345	-20296	-8306	-10123	-4951	-546
1942	599	94214	-94533	42173	-338304	-40457	100270	-57309	157757	282651	13372	-77310	83122
1943	74781	55698	38899	-3236	8963	-9338	-7614	-1525	-23011	-16560	-25600	-16189	75268
1944	5694	16952	5848	-18380	19178	63128	12784	-22946	-34423	-13414	-32555	670	2535
1945	3336	665	45621	15666	4522	18807	-63194	42413	-6124	-16750	-33911	-11271	-218
1946	14770	-4253	54793	26965	-10270	19882	-16766	-4394	-26564	30543	-19498	-23733	41474
1947	4680	-19372	40450	8645	26353	-4983	-1789	-19357	-14012	-23398	-10928	460	-13251
1948	-3636	-5948	14289	55344	10939	-8189	1429	-32147	-4010	-1750	-26217	-5381	-5277
1949	-28083	11079	27506	45813	19545	-16234	6661	-21385	-25551	11103	-31053	66594	65994
1950	-61228	43608	14815	-2102	15937	-4377	9736	-80535	-4845	47578	-23297	1241	-43470
1951	3247	3488	-16562	54789	-10253	22450	-21556	-12403	-35627	23435	-3062	12435	20381
1952	-50699	16051	9149	41232	8654	9156	-19574	-28979	-6236	-5859	-4152	-8341	-37598
1953	2730	21720	11824	37721	10533	4246	-23624	-26130	-2216	9388	-22757	9864	33299
1954	-2525	1053	23027	25592	21371	-10873	-23876	-16829	-6220	-6223	-3705	-2856	-2064
1955	2208	3024	14077	48579	13231	-20491	-8503	-45670	-794	-8638	0	-6599	-9578
1956	-442	-14529	27405	52802	-3105	28662	-30941	-6599	-30056	-73240	-7927	-10596	-68566
1957	2316	2281	31068	36311	-3235	-10411	-11257	-14456	-15500	8380	-31544	3357	-2692
1958	-18532	12126	12323	30698	21237	6438	-21035	-12966	-15753	6007	-15286	2125	7382
1959	0	1130	16207	36994	-7401	-14523	-11127	-18029	6485	3719	-5486	510	8490
1960	-13353	10141	-4298	32177	747	9719	4069	-27845	-10438	-742	-6211	1677	-4359
1961	-3399	-9593	33148	12612	11428	-963	-20845	2875	-5487	-15466	1429	-13493	-7754
1962	23971	-33044	26016	49389	-9043	-8019	-12209	-1300	-10246	-10897	-5248	-11711	-2341
1963	897	-21876	36082	34568	7747	-6759	-33999	8540	-20868	5404	-2842	-9863	-2970
1964	13251	-8906	8088	46643	14081	-30212	-7208	-19227	-8843	4016	-6567	-4528	587
1965	3420	-25448	18078	16135	52073	-11024	-8766	-23029	-10713	6736	-10272	8584	15775
1966	-14269	5047	15338	36532	9371	2751	-16838	-27571	2984	-8010	-10820	-6900	-12385
1967	9299	-13783	18840	44424	6381	6445	-37987	-8967	-1677	-12089	377	-3225	8039
1968	6279	-8808	12818	40916	8303	5372	-25376	-18395	-9657	-5899	-10961	-1586	-6994
1969	-5282	20401	1260	44802	10982	-2888	-21498	-14207	-7339	-6068	-4114	-16639	-590
1970	7725	-7955	7950	50105	22712	-3948	-8020	-23343	-25737	-927	5115	-15072	8605
1971	414	312	17500	34778	15135	-2506	-12059	-18942	-4941	-11324	-9950	-12207	-3791
1972	944	8699	18960	28996	19571	-10329	-9614	-21061	-11890	-21224	-8109	6792	1734
1973	1820	-4504	25433	32618	9819	-3479	-10134	-20814	-11059	-7714	389	-9508	2866
1974	-8018	14576	17190	35929	3486	-1342	-22892	-8703	-11597	7616	-21360	-14170	-9285
1975	9706	7352	2976	46171	8321	-9217	-3593	-21217	-1414	-13374	-4369	-8583	12759
1976	2874	-7320	16607	32003	18407	-11466	-26501	-10476	22460	-8540	-28510	24696	24235
1977	-22713	6513	17176	25459	13256	-7365	-14819	-16898	-1386	-5127	-6182	-6667	-18752
1978	5883	2176	11513	24581	13295	187	-19499	-14399	-3090	-10367	381	-11317	-655
1979	-12057	-4325	5906	7028	33664	-15002	-3595	660	6867	-8287	-192	-8726	1940
1980	10854	-60265	41354	41623	-383	-3975	-17118	-15654	6804	-759	-7071	18936	14345
1981	-13016	-3543	21069	36436	4298	768	-34404	-5383	-2300	-15670	6973	-20690	-25461
1982	5156	7478	-7685	67192	9551	-12557	-14418	-8650	-23584	-6860	-5117	-11257	-752
1983	-4578	20704	13478	3991	35799	-65983	28263	-36943	9921	-1767	-7142	-3314	-7572
1984	19311	3261	-7259	25594	-8253	-4593	11871	11264	-2849	-36540	13305	20361	45474
1985	-22610	-157	16194	2390	18719	-17975	-3050	-8996	-16164	11298	7935	15633	3217
1986	-10781	2626	-14164	22479	-7208	-28604	39271	-9019	-1087	-26089	4336	32457	4216
1987	-30561	-3617	6840	18567	24680	0	-23978	-6331	-1619	4951	-30070	23003	-18137
1988	-16236	-290	10002	43671	-8365	1755	-13896	-5703	-4422	-15409	-2250	7432	-3713
1989	-7788	-10675	19012	23485	8093	-474	-11006	-12888	-7103	-7473	-9690	2858	-13649
1990	-578	-3048	34306	13719	15132	-37203	3777	12251	-24515	-10584	-7629	-1582	-5953

Salt Load Gains – Davis Dam to Parker Dam

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1906	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1907	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1908	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1909	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1910	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1911	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1912	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1913	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1914	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1915	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1916	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1917	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1918	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1919	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1920	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1921	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1922	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1923	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1924	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1925	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1926	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1927	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1928	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1929	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1930	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1931	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1932	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1933	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1934	-1422	-30931	-1753	-8047	46	-11695	23150	30514	9374	11121	-17079	-1068	2210
1935	14323	80524	-3758	37003	-19765	1933	4524	13434	16440	84666	1989	31988	172301
1936	1835	-4452	-29569	16809	6413	-6736	5117	27117	7408	13906	7086	-161740	-116806
1937	3346	130012	-163	20598	8335	1853	24932	48002	23434	22353	9405	10030	302141
1938	-2798	-8607	36124	14710	5281	-7764	-32651	38561	16143	2318	-28693	7659	40286
1939	-18692	39512	7782	12161	9094	19388	17056	51559	329359	14552	-14386	-1607	465777
1940	-8811	-9698	-52922	18267	9521	-14491	9829	38491	25090	3071	-13009	27065	32405
1941	21374	21970	113211	83857	-76819	146781	56852	-19393	36544	-17956	-96633	-56415	213374
1942	-14969	93457	4861	-61006	-32043	21365	146202	34958	5161	62321	-40329	-25099	194878
1943	21082	22059	-47173	-8611	-4900	-11515	60101	47525	21894	10142	-23609	-36670	50324
1944	14398	-39388	23630	14783	-17791	23752	26235	9426	28914	-42126	-104385	6264	-56287
1945	-3034	-20169	13930	-9019	14	-3806	18346	-10238	-36841	-4212	-21422	36467	-39983
1946	-566	-33083	54606	29228	-30561	509	-7423	28615	-3917	-4099	4320	-4416	33214
1947	-2473	12318	38863	-56661	-48328	-14484	-31803	67633	-19417	-16754	-71175	-4329	-146610
1948	-19546	-22996	-28367	-62802	32549	-3885	60324	68042	36115	43541	-47452	-15798	39724
1949	4737	14464	22796	32339	35275	1959	24574	35626	47282	34975	-18883	12106	247250
1950	8785	-78279	47081	-23150	19993	-25276	40040	-6070	46091	46628	-15646	-3619	56578
1951	-12817	-64928	-32000	16028	-4666	30207	15917	70963	-28879	-11855	-35127	-37658	-94816
1952	3329	-103673	126355	13277	41454	-12727	14903	9868	-35600	-30544	-19197	147079	134723
1953	120453	-58207	44237	-6164	20797	-6694	55637	51877	30067	33253	-12682	-1028	271545
1954	-1376	-31515	69416	29925	38201	-4927	40270	38420	10076	38201	-1383	9418	234725
1955	32829	-34020	33815	41613	45946	14264	75523	110040	46024	29392	3020	32142	430589
1956	9909	-70760	-32957	9368	16043	-5337	60874	61627	47742	-4209	-15067	-5731	71514
1957	-11798	-71366	-14055	4631	25406	-23455	47910	75332	11579	13098	-96912	-52407	-92037
1958	-21356	-89834	-34703	-80502	-3822	-24771	-26221	31311	-12619	13425	-49272	1103	-297260
1959	-6375	-31566	-11505	-12411	-2256	-43142	34739	66706	8304	12177	-4171	-914	9386
1960	-3518	-41001	4985	45062	35880	7625	89070	76417	25277	33794	-9635	48042	311997
1961	-9363	-64062	-6598	12723	-19692	-6063	95413	66400	-6952	19657	17551	20911	119925
1962	7298	-53967	-545	38905	10583	26123	92198	126002	36170	53447	48272	27813	412328
1963	-17653	-52672	4597	-20274	6445	-35764	24496	48690	13056	10812	-20920	-4260	-43451
1964	-4387	-81633	-60841	-41875	-5996	-22135	-939	21522	-15750	32682	-1497	-10326	-191173
1965	-6622	-89489	-73463	1098	-29948	-30132	2225	35121	-17853	20816	-167	47621	-140792
1966	-4089	-65235	-25036	-17265	-10728	-49398	43304	44950	-38918	4083	-5574	67129	-56978
1967	23115	-69858	-22111	-22066	-22428	-54960	17627	-2014	-9073	11542	9165	-12438	-153500
1968	-18017	-56866	724	6926	-4147	-11505	49743	26869	-5963	18866	-14032	-3124	-10525
1969	3970	-87626	-36910	-31201	-21837	-40822	33542	12136	-6840	22724	-6461	-8574	-167918
1970	10137	-79883	-6656	-39263	45037	-13247	77659	56602	11545	32140	2436	-17119	79386
1971	-8638	-63319	-20445	-5681	37865	45074	54064	80567	26207	16908	-18584	11741	155758
1972	984	-54394	-9736	-64	18072	-67965	44520	47646	-7233	-2052	-16717	-11030	-57972
1973	-4099	-46955	-11848	-41190	27555	-36355	8448	-6683	-25073	2742	617	4945	-127896
1974	-31425	-87445	-6179	-20418	29585	-14078	10763	-5631	-29748	20965	-13101	-1198	-147911
1975	-2047	-42671	-16882	-22354	29243	3895	16630	10736	2119	8425	-79182	-10964	-45051
1976	-1708	-30893	-27738	-36118	-10791	-21002	-7284	56035	37040	-5660	-26083	-12714	-137255
1977	-4422	-52980	19651	93	27502	-38138	8367	33030	7320	13537	-6934	2113	9140
1978	14891	-56051	-22430	-31621	-13394	-54987	-9060	-4434	-22419	36466	-14458	432	-177066

Salt Load Gains – Davis Dam to Parker Dam

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	648	-14761	-9023	-85781	-48345	-26032	-33178	-59574	-27159	27542	-7339	-14093	-297096
1980	-10916	11354	4207	-44228	-30567	-4842	37866	-23732	-92446	-17960	-3337	6134	-168467
1981	4874	5388	-30347	24976	-11784	-53410	43830	-31791	10735	5223	-8657	3755	-37207
1982	-60895	-20906	-23539	-39096	172	-22449	-11852	58497	31985	-18387	3499	3197	-99774
1983	-37394	19257	9084	-36480	30321	-54564	-60153	-43626	-41218	-53826	-90692	-41357	-400649
1984	-41156	-57923	-19281	-24304	-56918	-65737	-44116	110690	36592	46964	4949	8077	-102164
1985	46988	909	51741	19766	18152	29763	17700	-6253	842	29239	24868	7304	241019
1986	-19900	-17649	-34634	-37076	-62577	-37415	-30922	-9539	-15745	-11047	-17830	-37899	-332232
1987	-31951	-28279	-30946	-31461	-11350	-4017	-20193	-8379	4546	-9310	-13477	-17598	-202414
1988	-3058	-32421	-44193	-30567	-26876	-31774	-41495	-1529	-16449	2126	-15344	-28099	-269680
1989	-19264	-29544	-47053	-50361	-40303	-31603	-32278	-50039	-22148	5093	-17518	-21642	-356660
1990	21632	6010	-7029	18447	45906	14229	14533	77875	30913	25504	42089	30063	320173

APPENDIX 6A

FLOW MODEL STATIONS

PARKER DAM TO IMPERIAL DAM

Colorado River Below Parker Dam -- Flow in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1917		212775	372487	1192043	3181442	5421855	3348251	720378	402058	323281	294274	295164	15764008
1918	286103	245069	582928	597108	1619864	3138973	1992096	563556	282167	331210	305269	280345	10224688
1919	177933	210230	404132	854571	1949145	1903479	941911	615655	207272	318211	305086	357627	8245252
1920	263587	587202	535592	836526	3966924	5073640	1720762	895978	307964	298179	268430	243810	14998594
1921	226338	268175	522318	603548	3068378	7383082	1965396	1482155	666958	309544	305771	365610	17167273
1922	372074	340647	707088	824083	3644407	5102718	1247114	540600	303642	189078	250491	285082	13807624
1923	232810	216688	298789	792686	2484197	4479832	1931870	1018248	858162	484497	506355	359085	13663219
1924	294933	282021	332396	1078968	2111364	2420182	762912	205358	162597	200636	236583	202582	8290532
1925	130296	224755	349839	786120	1284763	1657596	1031103	426546	702670	626722	349231	245704	7815345
1926	197806	177652	318654	955274	2389626	2877560	935171	320511	158310	254313	170119	219572	8974568
1927	185205	281159	372738	711514	2858883	2701082	1970227	588285	1407234	615655	442878	262816	12397676
1928	250887	251812	361454	573062	3035164	3125142	1059037	378565	199291	308111	313924	206622	10063071
1929	176506	179044	505820	1058736	2600584	4110377	1408693	1478047	1021833	573195	320142	259115	13691892
1930	172313	209105	335486	906418	1276705	2216843	736499	1064011	317339	324069	264311	182497	8005596
1931	145547	214719	230866	291690	641758	893369	297373	178763	119717	309054	221199	142476	3686531
1932	177418	469695	489298	1086389	2805730	2786216	1600841	474643	409005	188127	214020	181256	10882638
1933	145940	146761	298862	273195	734898	1312538	856754	233765	205192	247323	159413	204070	6648711
1934	187528	176038	197712	216723	643115	356481	63960	55652	83422	104098	118048	159340	2362117
1935	321200	265000	436900	421600	504300	924700	665100	575700	553300	570300	552800	300400	6091300
1936	285700	314400	534100	562700	535200	552600	656900	587200	525700	433100	341900	299900	5629400
1937	285400	472500	520700	531100	526700	546300	643800	632600	532600	482100	396600	379500	5949900
1938	369400	342100	532300	555300	532100	572100	601300	609500	534000	559700	415500	385600	6008900
1939	647300	1303000	652600	585600	563800	588200	638100	651800	817200	663000	646300	660600	8417500
1940	681000	452600	545400	623300	495800	574000	621900	621700	657800	798300	736200	848000	7656000
1941	626700	560700	749700	608300	1359000	1628000	997700	1332000	1528000	1585000	1731000	2042000	14748100
1942	1957000	1482000	1494000	1136000	1588000	1536000	1226000	880100	797200	845400	1041000	1213000	15195700
1943	1015000	746000	886200	877300	956600	975500	1086000	990500	1006000	1160000	1149000	1231000	12079100
1944	1241000	1223000	1297000	1164000	1116000	982600	1035000	1148000	1114000	1178000	1156000	1187000	13841600
1945	1186000	1061000	1232000	984600	969500	919500	913000	770300	824300	1038000	1036000	1099000	12033200
1946	1041000	1028000	944100	830300	873300	754300	801100	721600	730100	758700	788600	870000	10141100
1947	952700	899100	939600	797000	904900	859800	844200	892400	819000	836400	879700	1037000	10661800
1948	1160000	1160000	1107000	1083000	1115000	989000	1108000	986000	940600	918000	977700	1106000	12650300
1949	1229000	1192000	1236000	1116000	982600	923100	951900	1013000	1099000	1148000	1011000	1158000	13059600
1950	1080000	1036000	1209000	997900	1066000	900100	897100	832700	703900	651200	541700	557200	10472800
1951	550300	500800	729600	764600	675300	861800	944900	944500	723200	709200	560500	707100	8671800
1952	1104000	1134000	1424000	1300000	1443000	1419000	1263000	1296000	1321000	1234000	1172000	1303000	15413000
1953	1198000	1020000	947300	808100	952700	955600	1093000	1056000	822900	633900	527400	634300	10649200
1954	797200	660900	782300	863600	1015000	882600	1000000	981600	754500	636200	637900	659000	9670800
1955	733900	598200	732500	758100	792000	866200	963400	848700	693500	498700	369400	286000	8140600
1956	317300	363500	627700	683800	670700	786800	864800	823300	633900	486300	321100	289800	6869100
1957	242800	348700	589000	731500	645000	782900	890600	816600	660900	503000	780700	1005000	7996700
1958	1285000	564700	1345000	1333000	1013000	853700	930200	866600	713700	609700	622800	752900	10890300
1959	676800	593000	690000	831700	705700	797000	962400	873300	682100	557900	405100	410500	8185500
1960	427700	473800	759900	810200	740200	879300	986200	868000	639400	489700	397100	322300	7793800
1961	379400	453100	741600	724500	705000	822500	899900	709700	606000	411800	319300	201800	6974600
1962	333700	373600	692000	756500	686000	778100	881900	821200	644100	471000	434200	286500	7158800
1963	349500	467300	734700	690300	707700	840200	933400	818600	630100	438300	334300	306500	7250900
1964	362800	479400	640100	652400	598100	742000	864000	795200	589300	409200	274900	245000	6652400
1965	289400	423000	634400	581000	604100	709900	845900	867000	599300	385400	220100	196700	6356200
1966	176000	412900	604100	729300	699000	790400	900700	852300	584800	355700	254500	320200	6679900
1967	305900	430700	677300	608300	648400	725600	835200	749200	490300	434565	247144	169768	6322377
1968	350465	450473	679924	699481	625933	722272	779396	752287	582534	404336	309287	312262	6641650
1969	253868	466559	739984	712394	640591	674430	764639	732903	488040	434089	220089	310319	6437905
1970	366947	441983	653662	750259	657074	705729	792210	674648	530031	453726	303852	328011	6658132
1971	338623	485759	742741	745955	660585	745900	877500	690020	563357	397136	309347	355483	6911406
1972	346002	480027	747165	766504	699620	688830	875120	716123	573569	223699	282748	388826	6788233
1973	355285	347628	641642	799747	696367	672942	829103	726120	644003	484034	309624	340388	6846883
1974	244506	481435	705015	864211	756110	790623	874327	824462	624485	398800	282000	324700	7170674
1975	362600	447300	690000	795400	769800	693800	825300	802500	650500	476500	336800	359500	7210000
1976	352800	364500	805300	771100	693600	717300	789500	842800	400000	454800	284900	356300	6696800
1977	257600	498500	683100	811600	651900	760300	956200	687600	460300	347800	288100	308500	6711500
1978	136700	397800	692100	849100	678800	762800	905900	791500	573000	360300	267300	270100	6685400
1979	151800	336800	575800	776100	782900	849700	960600	829800	709400	505200	367900	348700	7194700
1980	304100	386500	1056000	1121000	964000	1145000	1247000	1164000	981600	879300	760100	714700	10723300
1981	462400	453900	697000	869200	676200	829300	942000	881300	563800	326100	234100	293800	7229100
1982	329700	491700	652800	850700	658400	617700	763200	638400	506700	380200	219300	263900	6366700
1983	1007007	401732	591411	1050842	1127206	1612561	2439668	2422015	2265916	2202518	1604255	1473264	18198395
1984	1728442	1657194	1740739	1609000	1662000	1932000	2012000	1835000	1668000	1592885	1498710	1526478	20462448
1985	1521700	1470000	1376900	1205000	1375000	1557000	1609000	1602000	1363000	1055000	998700	1169000	16306300
1986	1333000	1020000	1428000	1307000	1806000	1635000	1518000	1447000	1293000	1047000	971500	1357000	15962500
1987	1339000	1056000	937900	806200	737900	792400	857700	861200	702400	562600	348200	558500	9559400
1988	589100	504100	732800	699400	739100	771400	906500	811500	576800	455200	362300	359600	7507600
1989	279100	452300	727600	863900	699400	705600	829500	707300	578700	493300	308400	285900	6931000
1990	281800	464000	678100	782700	778400	800600	843400	719800	557700	503200	365500	351700	7126900

Colorado River Above Imperial Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	285800	363100	986500	1513800	3205600	5007500	2396200	1153600	694700	720400	577800	795400	17700400
1906	285800	363100	986500	1513800	3205600	5007500	2396200	1153600	694700	720400	577800	795400	17700400
1907	1179900	983300	1216800	2094300	2327900	5634000	5915500	2310900	1276700	776600	626900	457200	24800000
1908	389600	411600	825200	1059600	1672500	2554900	2009000	1402100	634000	585900	482700	572500	12600000
1909	543800	597800	827800	1708500	3310100	6238300	4874700	2452300	2807200	860800	561800	516900	25300000
1910	945300	499600	1497900	1706800	3469500	2796000	904400	591600	366700	428700	466700	426700	14099900
1911	480700	704100	985500	1215900	2769200	3824900	3053700	1133700	530800	1729700	706100	465700	17600000
1912	332400	425800	698000	1189000	2517700	6424200	2866100	1377800	584500	677900	702000	404700	18200100
1913	232500	329800	489300	1473800	2329100	2766600	1275200	567600	513800	621400	597900	800500	11999900
1914	459500	540500	928200	1399000	3392800	6743600	3247200	1354900	594900	851300	615400	472800	20600100
1915	437400	836700	656100	1443300	2655300	2966000	1954600	684000	278500	456000	367300	365200	13100000
1916	737700	790900	1487700	1596100	3413300	3617900	2310300	1713800	680400	1446800	668100	436900	18899900
1917	407100	365100	480700	1142500	2849600	5472100	5906800	1391000	548200	475600	431600	429600	19899900
1918	462000	396000	858000	871200	2032800	3418800	2402400	831600	448800	514800	488400	448800	13173600
1919	283500	325500	577500	1113000	2205000	2163000	1218000	840000	325500	4725000	451500	525000	14752500
1920	527500	1076100	970600	1434800	4937400	5886900	2595300	1519200	590800	569700	527500	485300	21121100
1921	390000	448500	799500	916500	3471000	6493500	2457000	1950000	994500	507000	507000	585000	19519500
1922	608400	557700	1064000	1216800	4005300	5120700	1723800	845000	507000	338000	422500	473200	16882400
1923	414000	396000	522000	1206000	3096000	4806000	2538000	1494000	1296000	792000	828000	612000	18000000
1924	498800	475600	556800	1542800	2656400	2958000	1148400	359600	290000	348000	406000	359600	11600000
1925	273000	442000	650000	1326000	2002000	2470000	1664000	780000	1196000	1092000	650000	481000	13026000
1926	365400	327600	554400	1436400	3024000	3490200	1411200	544000	302400	453600	315000	390600	12614800
1927	350000	507500	647500	1137500	3552500	3412500	2660000	962500	2030000	997500	752500	472500	17482500
1928	448000	448000	630000	938000	3696000	3766000	1582000	644000	364000	546000	546000	378000	13986000
1929	338400	338400	846000	1598000	3308800	4662400	2030400	2124400	1560400	940000	564000	470000	18781200
1930	324000	384000	576000	1380000	1836000	2868000	1152000	1572000	552000	564000	468000	336000	12012000
1931	267500	377000	401300	492500	991000	1319400	504600	322200	231000	522900	389100	267500	6086000
1932	336600	780300	810900	1621800	3473100	3457800	2233800	795600	688500	351900	397800	336600	15284700
1933	274900	274900	511900	474000	1128100	3668800	1289300	407600	369700	436100	293900	360200	9489400
1934	310000	295200	324700	354200	922500	549800	104300	82600	169400	137000	172100	268100	3689900
1935	305800	255500	416800	379100	440200	872100	618000	508200	494500	511400	513900	285100	5600600
1936	261200	277600	461800	496600	477500	469700	556500	505100	444700	380800	311500	272900	4915900
1937	266100	416900	480100	479000	470200	460600	557900	544400	475000	444300	366500	354000	5315000
1938	345500	321500	481900	508800	472700	492200	526600	543800	470800	513900	398900	386900	5463500
1939	553500	1224000	655200	532400	496500	492500	548800	560500	845500	643900	627400	659500	7839700
1940	665700	453600	498900	575800	439000	494200	523100	523400	584000	719200	692600	809300	6978800
1941	642000	535000	743000	562000	1150000	1605000	965000	1192000	1444000	1505000	1671000	2010000	14024000
1942	1876000	1590000	1476000	1080000	1524000	1465000	1199000	844000	742000	761000	981000	1176000	14714000
1943	1011000	729000	846000	802000	842000	876000	972000	910000	917000	1094000	1124000	1222000	11345000
1944	1209000	1216000	1289000	1126000	1055000	900000	920000	1041000	1041000	1123000	1142000	1143000	13205000
1945	1160000	1047000	1193000	947000	905000	860000	817000	718000	745000	912000	1011000	1075000	11390000
1946	1008000	1005000	927000	759000	786000	658000	719000	666000	639000	707000	757000	855000	9486000
1947	933000	872000	934000	737000	827000	787000	743000	830000	733000	753000	851000	1041000	10041000
1948	1106000	1135000	1092000	1007000	1051000	916000	1003000	906000	871000	901000	945000	1103000	12036000
1949	1237000	1183000	1226000	1084000	927000	871000	860000	934000	996000	1103000	1000000	1146000	12567000
1950	1088000	994000	1169000	936000	1002000	841000	822000	758000	643000	603000	510000	540000	9906000
1951	558000	498000	635000	744000	606000	703000	820000	853000	697000	682000	559000	698000	8053000
1952	1058000	1107000	1424000	1279000	1345000	1309000	1182000	1178000	1215000	1240000	1176000	1298000	14815000
1953	1216000	1022000	911000	756000	856000	811000	980000	931000	776000	644000	522000	620000	10045000
1954	783000	661000	723000	773000	929000	804000	885000	887000	719000	620000	602000	644000	9030000
1955	739000	593000	678000	716000	729000	746000	882000	811000	638000	499000	379000	298000	7708000
1956	298800	344000	546000	646000	594000	666000	753000	717000	583000	479000	343000	297000	6266000
1957	258000	314000	520000	667000	581000	651000	794000	759000	616000	511000	695000	978000	7344000
1958	1299000	637000	1253000	1280000	1016000	769000	812000	802000	655000	624000	592000	761000	10500000
1959	674000	592000	618000	770000	646000	679000	824000	821000	644000	565000	421000	441000	7695000
1960	449000	436000	651000	762000	650000	736000	845000	777000	606000	481000	360000	354000	7107000
1961	342000	400000	648000	666000	618000	691000	753000	671000	541000	427000	312000	222000	6291000
1962	337000	304000	597000	689000	619000	648000	741000	730000	593000	458000	439000	303000	6458000
1963	337000	393000	615000	647000	602000	691000	775000	757000	595000	461000	340000	309000	6522000
1964	337000	415000	562000	609000	530000	576000	719000	679000	539000	396000	281000	257000	5900000
1965	272000	332000	548000	566000	548000	558000	709000	737000	540000	400000	257000	237000	5704000
1966	203000	334000	517000	622000	576000	637000	729000	733000	532000	389000	263000	314000	5849000
1967	301000	369000	593000	558000	550000	595000	673000	672000	450000	412000	268000	174000	5615000
1968	342000	366000	566000	622000	532000	580000	625000	609000	494000	399000	297000	309000	5741000
1969	271000	367000	601000	638000	550000	553000	622000	628000	443000	417000	225000	292000	5607000
1970	352000	352000	558000	677000	540000	549000	623000	577000	440000	423000	299000	315000	5705000
1971	324000	391000	612000	627000	524000	579000	676000	600000	472000	390000	300000	334000	5829000
1972	341000	389000	618000	644000	560000	559000	667000	633000	484000	295000	267000	340000	5797000
1973	361000	306000	532000	663000	571000	524000	645000	613000	539000	452000	310000	331000	5847000
1974	255000	408000	571000	714000	626000	624000	727000	733000	558000	409000	292000	301000	6218000
1975	351000	382000	559000	662000	642000	555000	654000	662000	561000	450000	334000	349000	6161000
1976	341000	328000	658000	679000	592000	557000	647000	670000	450000	369000	257000	355000	5903000
1977	264000	389000	569000	681000	534000	586000	734000	603000	433000	325000	277000	310000	5705000
1978	171000	340000	550000	697000	563000	589000	708000	664000	501000	357000	274000	285000	5699000

Colorado River Above Imperial Dam – Flow in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	184000	265000	447000	613000	644000	661000	762000	723000	624000	500000	368000	339000	6130000
1980	317000	343000	857000	979000	861000	921000	1065000	986000	864000	817000	727000	697000	9434000
1981	504000	368000	602000	735000	579000	624000	744000	725000	505000	345000	257000	277000	6265000
1982	331100	378100	539100	707600	535000	496800	590000	561900	415100	366900	246700	237881	5406181
1983	862743	447954	505000	840100	960400	1339300	2226300	2320700	2142200	2219500	1609400	1456100	16929697
1984	1649500	1577500	1607400	1513600	1509800	1705000	1844500	1716300	1534400	1500300	1427700	1521000	19107000
1985	1473900	1373800	1274400	1073000	1165000	1349000	1422000	1425000	1318000	1056000	940600	1094000	14961700
1986	1264000	955800	1279000	1189000	1573000	1520000	1376000	1279000	1185000	1055000	940900	1087000	14703700
1987	1280000	996200	891000	724400	644000	644600	712900	733400	633800	559800	360700	531000	8711800
1988	598000	466500	633600	646800	605800	606600	710400	715200	502100	422700	351800	348600	6608100
1989	274500	365500	609900	723200	602100	554600	657300	605900	501800	446900	330000	304700	5976400
1990	303900	377900	566200	658100	626000	613700	669100	606400	497300	441200	349100	330100	6039000

Cibola National Wildlife Refuge Consumptive Use in Acre–Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1976	1011	484	1007	1103	1116	1630	1447	1488	1539	863	969	783	13440
1977	146	818	806	1117	1031	1302	1289	1588	691	1145	875	570	11378
1978	519	39	503	923	988	1171	1424	1031	1278	737	399	394	9406
1979	478	700	1756	1779	1723	1517	913	797	1027	686	1039	1132	13547
1980	1606	876	2187	1971	1437	1217	1503	1549	1438	1106	455	567	15912
1981	762	432	1932	1253	1158	1329	1030	724	836	1029	999	748	12232
1982	604	570	800	877	737	1208	1191	934	514	294	416	105	8250
1983	36	93	217	956	938	988	952	688	653	431	431	119	6502
1984	36	162	404	487	814	869	561	519	472	550	440	120	5434
1985	22	84	215	384	544	823	569	847	956	615	682	540	6281
1986	486	38	210	299	520	524	581	382	857	765	765	959	6386
1987	208	120	116	473	387	394	297	142	446	1460	1349	905	6297
1988	175	198	408	776	634	1091	847	724	678	1747	1963	869	10110
1989	701	211	162	1175	950	1227	859	1055	998	1311	1973	1474	12096
1990	607	223	354	490	854	1128	739	750	1123	1174	1515	1372	10329

Palo Verde Irrigation District Consumptive Use in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1935	1389	6946	9938	12716	13143	14747	17632	13464	9297	2992	2885	1710	106859
1936	1583	7913	11322	14487	14974	16801	20088	15340	10592	3409	3287	1948	121744
1937	1548	7739	11072	14167	14644	16429	19644	15001	10358	3334	3214	1905	119055
1938	1591	7956	11384	14566	15056	16892	20197	15423	10649	3427	3305	1959	122405
1939	1780	8900	12734	16294	16841	18895	22592	17252	11912	3834	3697	2191	136922
1940	2482	12409	17754	22718	23481	26345	26345	24054	16609	5345	5155	3055	185752
1941	2104	10518	15048	19255	19255	19903	26699	20388	14077	4531	4369	2589	158736
1942	2343	11716	16764	21450	22171	24875	29742	22712	15682	5047	4867	2884	180253
1943	2117	10586	15146	19381	20032	22475	26873	20521	14169	4560	4397	2606	162863
1944	2267	11337	16220	20755	21452	24068	28777	21975	15174	4883	4709	2791	174408
1945	2240	11201	16027	20507	21196	23781	29434	21713	14993	4825	4653	2757	173327
1946	2756	13814	19765	25290	26141	29328	35067	26778	18490	5951	5738	3400	212518
1947	3277	16386	23445	29999	31008	34789	41596	31764	21932	7059	6807	4034	252096
1948	3706	18528	26509	33920	35060	39335	47031	35915	24798	7981	7696	4561	285040
1949	4327	21637	30958	39612	40944	45937	54925	28960	9321	8988	5326	319895	
1950	5090	25449	36412	46592	48158	54031	64602	49332	34063	10963	10571	6264	391527
1951	4588	22939	32820	41995	43407	48700	58229	44465	30702	9881	9528	5646	352900
1952	4737	23686	33889	43364	44821	50287	60125	45914	31703	10203	9839	5830	364398
1953	4976	24882	35600	45553	47084	52826	63162	48238	33304	10718	10336	6125	382804
1954	5597	27990	40041	51236	52958	59416	71041	54249	37458	12055	11625	6889	430555
1955	5171	25853	36989	47330	48921	54887	65626	50114	34603	11370	10739	6364	397967
1956	6033	30165	43159	55225	57082	64043	76573	58474	40375	12994	12530	7425	464078
1957	5251	26257	37568	48071	49687	55746	66653	50899	35144	11311	10907	6463	403957
1958	5453	27265	39010	49917	51595	57887	69213	52854	36494	11745	11326	6712	419471
1959	5721	28604	40926	52368	54128	60729	72611	55448	38286	12322	11882	7041	440066
1960	4698	23490	33609	43006	44451	49872	59630	45535	31441	10119	9758	5782	361391
1961	13120	32530	35170	34130	46230	61600	68190	45220	39410	14360	6600	-3310	393250
1962	3130	22140	31960	30190	39940	57590	68420	62780	37710	11480	8780	-1740	372380
1963	1290	23600	35660	27110	40160	58120	69960	46170	31720	11900	7850	3470	357010
1964	12630	31080	28580	37880	42300	62940	72160	49310	38470	15110	3460	3860	397780
1965	1630	30770	34590	13320	38870	61530	70960	59300	41070	10520	-2420	-9380	350760
1966	-8260	24910	45480	48540	49360	60380	67320	54400	43490	390	12000	6550	404560
1967	5500	37000	35040	38920	46940	53680	59950	41440	28230	14560	5220	-3000	363480
1968	10440	31130	40180	45490	45270	51920	55870	51540	38150	7270	12470	3790	393520
1969	-8250	31710	42850	43680	44630	50350	59810	64950	35830	10190	6760	11140	393650
1970	8910	24610	23560	52050	48880	53810	66720	42760	36330	20380	19890	12210	410110
1971	8750	30720	38840	52270	51990	54090	76610	44200	42660	17780	20780	19880	458570
1972	10450	29320	45050	58040	54940	53120	72580	52890	37150	-8190	16590	17700	439640
1973	8230	10720	28610	66260	66650	61630	75260	59210	47670	21140	10350	9520	465250
1974	5690	34610	41250	58880	55840	61810	65190	55330	47030	12590	11620	8560	458400
1975	18576	27952	41384	53427	62934	44051	60367	56186	40751	23223	13405	7230	449486
1976	9363	8458	51771	49389	58369	57689	66738	60183	10352	7354	10929	1725	392320
1977	4403	28691	39974	55829	50013	67014	81781	46550	25481	12946	14830	7550	435062
1978	-9946	22570	44460	68537	50911	63909	78171	48743	31145	11214	10838	273	420825
1979	-5764	24439	45011	64234	61620	64085	67509	51116	49450	15029	10993	11888	459610
1980	2148	7361	49028	64041	39676	56038	71310	58913	42524	12789	7308	7168	418304
1981	9763	36569	35854	64501	60093	77466	85299	81016	54209	10701	2624	5739	523834
1982	8668	32499	39279	65870	54409	63759	77456	56495	49821	12891	1342	-5589	456900
1983	4577	18260	31516	47878	46260	52814	53734	25912	34627	4892	7700	5351	333521
1984	2930	30496	40149	52934	50692	47107	34070	42595	41471	7446	663	-18712	331841
1985	-3900	24831	41648	58103	53112	62157	62891	60437	22635	243	6556	8227	396940
1986	4498	21878	43363	55373	48175	55175	59135	62390	36710	6732	7383	3766	404578
1987	2762	30928	34008	52922	51801	62350	65478	62221	37018	14927	899	4822	420136
1988	995	24168	52997	35028	60435	68835	83726	50912	27308	11610	12060	15747	443821
1989	278	27720	47444	57614	51426	51046	75070	62851	39097	16845	9517	13141	452049
1990	2646	25160	38300	46705	59871	70110	72028	57153	34398	20600	11898	20746	459615

Colorado River Indian Reservation (AZ & CA) Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	140	440	1160	2630	2700	2970	4550	4930	2140	1120	300	160	23240
1936	180	580	1520	3430	3520	3890	5950	6440	2790	1460	400	210	30370
1937	0	520	1940	4220	3050	4800	6210	7200	4430	287	550	395	33602
1938	481	838	1510	3150	3090	3100	4390	5120	2570	4390	564	0	29203
1939	0	285	2450	2880	2620	4380	5540	6470	0	248	0	159	25032
1940	436	823	1980	4670	4290	4340	7990	8110	2790	1410	286	264	37389
1941	0	456	0	2620	5030	3220	6310	6080	4490	1190	635	286	30317
1942	565	1020	2280	5040	4720	4390	9570	10330	8130	5470	2490	2320	56325
1943	1930	1830	7350	8370	8940	7060	9380	10870	9450	5870	4120	3960	79130
1944	2910	2990	5750	9700	10630	12980	16920	17210	14500	10180	5240	4920	113950
1945	4290	5090	6800	11720	11360	10420	13630	10340	10170	7060	5850	4920	101650
1946	6280	4650	7910	8380	8480	10240	12480	11460	8430	5630	3680	4360	91980
1947	3540	6950	8050	7740	7310	11370	11970	12240	10090	9710	5770	4080	98820
1948	4370	5760	8100	9820	9430	10660	14380	16250	10740	5630	5210	2820	103170
1949	-907	3660	9360	11080	12070	12090	17510	19580	15910	6960	5800	6120	119233
1950	3600	8470	10740	12810	13060	19320	20540	23960	19630	11240	10080	4910	158360
1951	1990	3870	12370	17640	13270	23860	-940	20880	14120	12080	7620	3810	103570
1952	30550	8140	8680	17720	18810	21310	35910	35760	17950	12130	4090	5210	216260
1953	-5117	8430	19800	19630	20780	29440	33370	34740	21420	11670	9040	6210	209413
1954	-1300	14350	14070	26660	21600	31860	29670	33340	22730	15670	12350	11870	232870
1955	-6308	13980	19100	21570	26030	27970	28670	19240	21930	15530	10040	6270	204022
1956	2890	5420	17110	20140	22000	30820	36310	32920	14680	8330	1490	3220	195330
1957	1060	3720	16970	15980	15990	27220	26210	25840	20220	8150	1230	-860	161730
1958	-2280	2080	18410	15610	15400	24270	24850	22240	17400	5980	5300	9430	158690
1959	5480	1770	25790	19010	9890	26680	32550	17080	17430	8090	950	840	165560
1960	3830	6270	23670	13430	13380	31880	34040	29470	15510	8720	1030	4200	185430
1961	3400	14260	24430	14200	15000	24400	28170	20050	16830	6180	3370	590	170880
1962	-870	8040	20110	17080	15770	24670	31670	31020	20100	6120	2330	2230	178270
1963	-3770	12200	27720	15330	15080	26320	31970	28880	16700	6550	3080	5960	186020
1964	-1750	11920	22810	14380	19730	27210	31680	27770	18100	6320	-780	2600	179990
1965	-2210	15400	23960	12630	15550	23160	28380	30870	19930	3660	-2780	-7010	161540
1966	-5313	14375	24348	23378	23619	25028	31299	32349	23348	1469	2748	5318	201966
1967	188	18307	24128	19327	27947	31417	33097	25607	10267	10147	3247	1156	204835
1968	2014	16955	31336	22205	26580	33665	36516	35142	18542	3346	3520	2493	232314
1969	-463	18550	33378	19370	25630	33135	37629	34571	11267	6649	1557	2926	224199
1970	-1957	20844	15616	18431	26370	28889	40938	36385	23015	11643	4983	3085	228242
1971	608	26664	33007	35602	34160	33062	43348	31238	32076	12381	7881	7190	297217
1972	-4753	29880	26825	31759	37719	35242	43416	35603	22421	-1340	4367	8079	269218
1973	-10437	25095	20752	38743	40866	40880	52750	40917	34117	18796	6228	9052	317759
1974	-4986	22083	27476	37787	35935	41231	51701	46600	28233	11426	3622	7747	308855
1975	-784	25158	32523	41684	46510	44912	48722	44688	30488	18302	6746	13464	352413
1976	-2835	12974	44803	34212	38396	51176	45322	45705	19330	6786	4737	7156	307762
1977	-7527	34248	37352	35003	36643	56708	61303	60957	48802	28188	12280	6382	410339
1978	-7224	2235	31793	47404	39330	55684	60058	59403	32654	6104	-1233	1297	327505
1979	-7584	20038	32988	40298	39650	55218	60518	47693	30914	8776	3649	8755	340913
1980	-8390	5975	29558	48504	29727	52496	67897	59894	44326	15709	4075	10971	360742
1981	-9781	28443	39571	49244	43967	67741	69166	58732	31423	8500	2691	4879	394576
1982	-2290	22122	34543	40936	42257	60693	68748	31082	31306	8607	1652	-861	338795
1983	-2198	14593	20929	40331	41300	49406	47498	24264	30133	8355	7068	3278	284957
1984	-5474	27335	35289	31927	37064	51475	46221	35783	23412	8846	1233	-15104	278007
1985	-10994	7684	36057	36132	42704	46563	56264	55911	24455	5409	3750	959	304894
1986	-3717	18133	32290	36022	39480	52372	45985	43195	22399	6270	5874	3946	302249
1987	4260	26993	31884	39921	46329	58274	64365	52442	24633	10904	-702	5029	364332
1988	-3128	19692	40926	29960	50239	61817	64039	44049	33292	15334	9591	8474	374285
1989	-1057	20394	59304	47341	53892	68150	67620	49831	36159	14838	7004	9856	433332
1990	-7308	23297	44958	39217	54463	69283	72789	53295	29062	19148	10365	15035	423604

Imperial National Wildlife Refuge Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1966	17	17	15	27	26	33	28	35	47	33	18	15	311
1967	19	19	17	30	29	37	31	40	53	37	20	17	350
1968	19	19	18	31	30	38	32	41	54	39	21	18	361
1969	24	24	22	39	38	48	40	51	67	48	25	22	447
1970	11	12	10	19	18	23	19	24	32	23	12	11	214
1971	6	6	6	10	10	12	10	13	17	12	7	6	114
1972	8	8	7	13	13	16	14	17	23	16	9	8	154
1973	8	8	6	3	3	2	1	46	71	46	15	15	224
1974	8	8	7	13	12	15	13	16	22	15	8	7	144
1975	24	35	0	19	20	52	18	9	49	38	16	23	303
1976	13	13	12	21	21	26	22	28	37	26	14	12	245
1977	8	8	8	14	13	17	14	18	23	17	9	8	155
1978	21	2	20	37	40	47	57	42	52	30	16	16	380
1979	15	15	13	24	23	29	25	31	41	29	16	13	275
1980	18	18	16	29	28	36	30	38	51	36	19	17	337
1981	8	9	9	16	14	15	14	15	12	11	10	5	138
1982	8	9	10	17	15	16	15	16	12	11	10	5	144
1983	1	1	2	3	3	3	3	3	3	2	1	1	26
1984	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	no data exists												0
1988	1	1	1	2	2	3	2	3	4	3	1	1	24
1989	11	11	10	18	18	22	19	24	32	22	12	10	210
1990	607	223	354	490	854	1128	739	750	1123	1174	1515	1372	10329

Town of Parker Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	12	13	16	18	26	31	36	36	28	19	14	11	260
1936	12	13	16	19	27	33	38	37	29	20	14	12	270
1937	13	14	17	20	28	34	39	38	31	20	15	12	281
1938	13	14	18	21	29	35	40	40	35	21	15	12	293
1939	14	15	18	21	30	36	42	41	33	22	16	13	301
1940	14	15	19	22	31	38	43	42	34	23	16	13	310
1941	15	16	20	23	32	39	44	44	35	23	17	14	322
1942	15	16	20	23	33	40	46	45	36	24	17	14	329
1943	16	17	21	24	34	41	47	47	37	25	17	15	341
1944	16	17	21	25	35	42	49	48	38	26	18	15	350
1945	17	18	22	26	36	44	50	49	39	26	19	15	361
1946	17	18	23	26	37	45	51	51	40	27	19	16	370
1947	17	19	23	27	38	46	53	52	41	28	20	16	380
1948	18	19	24	28	39	47	54	53	43	28	20	17	390
1949	18	20	24	28	40	48	56	55	44	29	21	17	400
1950	19	20	25	29	41	50	57	56	45	30	21	18	411
1951	20	21	26	31	43	52	60	59	47	31	22	18	430
1952	20	22	27	31	44	53	61	60	48	32	23	19	440
1953	21	22	27	32	45	54	63	62	49	33	23	19	450
1954	22	23	29	33	47	57	65	64	51	34	24	20	469
1955	22	24	29	34	48	58	67	66	52	35	25	21	481
1956	23	25	30	36	49	61	69	69	54	37	26	22	501
1957	23	25	31	36	50	62	71	70	56	37	27	22	510
1958	24	26	32	38	52	64	74	73	58	39	28	23	531
1959	25	26	33	38	53	65	75	74	59	39	28	23	538
1960	26	27	34	40	55	68	78	77	61	41	29	24	560
1961	26	28	35	40	56	69	79	78	62	42	30	25	570
1962	27	28	35	41	57	70	81	79	63	42	30	25	578
1963	27	29	36	42	58	71	82	81	64	43	31	25	589
1964	29	82	186	295	294	247	286	57	61	37	38	28	1640
1965	67	62	82	55	57	66	83	82	58	47	26	25	710
1966	22	20	33	43	63	81	93	98	63	41	28	20	605
1967	23	23	28	28	55	72	82	82	61	46	34	21	555
1968	21	22	32	41	61	79	79	84	77	49	34	25	604
1969	22	23	35	52	70	83	90	104	82	49	29	27	666
1970	25	26	28	41	63	70	92	92	77	48	35	26	623
1971	32	38	49	54	64	84	103	82	76	39	27	18	666
1972	22	27	52	57	77	87	108	99	68	39	33	28	697
1973	36	28	40	60	101	108	164	167	106	72	52	46	980
1974	40	48	45	63	101	131	111	94	84	58	41	35	851
1975	38	50	55	63	81	97	105	112	96	67	51	44	859
1976	48	56	44	43	71	97	110	103	102	57	51	47	829
1977	43	48	61	73	74	97	111	103	88	69	52	43	862
1978	38	34	50	63	84	103	114	112	94	75	49	41	857
1979	44	47	58	76	90	120	141	117	101	84	61	51	990
1980	45	40	48	68	99	123	154	148	106	98	64	52	1045
1981	51	52	64	106	123	214	203	193	135	75	66	52	1334
1982	51	54	69	92	109	156	177	114	98	73	52	42	1087
1983	48	47	59	80	91	97	103	81	82	70	50	43	851
1984	48	47	59	80	91	97	103	81	82	70	50	43	851
1985	38	58	108	162	212	270	268	132	91	139	74	58	1610
1986	61	43	63	80	105	120	122	127	92	80	68	47	1008
1987	50	52	65	61	112	137	144	139	122	106	72	60	1120
1988	55	58	78	72	108	703	141	116	96	97	62	49	1635
1989	45	53	77	100	114	129	140	131	111	93	59	55	1107
1990	55	44	75	81	99	120	131	126	99	83	59	58	1030

Parker Dam and Government Camp Consumptive Use in Acre-Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1972	14	13	13	33	35	33	35	33	33	10	9	9	270
1973	5	5	5	22	23	22	60	59	59	13	13	11	297
1974	5	6	7	20	23	24	55	55	16	15	12	12	250
1975	6	7	9	15	21	30	32	34	22	14	10	6	206
1976	6	5	9	13	40	38	36	36	23	11	7	10	234
1977	10	11	15	17	17	23	26	24	20	17	12	10	202
1978	11	13	16	19	19	26	29	27	22	19	14	11	226
1979	13	14	17	22	25	35	41	34	29	25	18	15	288
1980	8	8	11	21	25	32	38	45	34	26	14	11	273
1981	8	10	13	16	21	38	36	55	31	21	16	15	280
1982	7	8	8	19	23	36	40	30	28	15	7	7	228
1983	4	3	4	10	18	24	29	18	15	8	6	4	143
1984	3	4	9	12	20	25	27	23	22	13	8	5	171
1985	4	5	7	14	20	22	28	28	20	19	10	8	185
1986	5	8	12	19	25	32	33	33	28	20	15	8	238
1987	7	7	10	17	28	34	36	39	32	25	12	8	255
1988	7	10	14	18	28	34	37	33	32	33	16	11	273
1989	10	6	23	32	33	34	39	38	38	24	15	16	308
1990	11	9	12	18	27	34	30	32	25	21	11	7	237

Miscellaneous Consumptive Use in Acre-Feet
 Ehrenburg Improvement Association
 Cibola Valley Irrigation District

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	6	6	7	7	9	10	13	11	8	7	7	5	96
1982	6	7	8	10	12	15	14	13	10	11	7	6	119
1983	587	661	2093	1627	914	1501	2085	882	1169	481	228	43	12271
1984	148	328	2200	1372	1850	2133	2315	2727	1814	546	284	8	15725
1985	117	464	2672	1701	2413	3132	3291	2842	1442	259	346	264	18940
1986	345	1119	2597	1966	2174	3140	3285	2604	1525	642	449	131	19977
1987	839	1659	2634	2659	3533	4381	3995	4085	3044	1166	65	374	28434
1988	394	260	3067	1586	2397	4212	4860	2855	2371	1243	643	677	24545
1989	399	1496	3340	2344	2224	4006	4536	3685	2546	857	511	572	26516
1990	541	1366	3093	1828	2390	4323	4702	3311	2072	1356	1006	1271	27259

Other Arizona Users Consumptive Use - Parker Dam to Imperial Dam (Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1964	2172	3407	3938	3868	4083	4626	5257	4735	3896	2607	1604	1535	41728
1965	1077	2614	3468	2455	3394	4237	4945	4786	3960	2302	1460	726	35424
1966	476	2032	3561	3723	3819	4281	4913	4628	4019	1899	1906	1679	36936
1967	969	1817	3153	3399	3439	5033	5209	4226	3327	2554	1831	752	35709
1968	907	2241	3054	4154	3780	3654	4513	4421	4416	2721	1333	1971	37165
1969	1187	1713	4022	4335	4553	4048	4992	4101	3809	4425	2065	1744	40994
1970	2356	1924	4046	3072	4273	5002	5414	5379	3651	3659	2652	1784	43212
1971	1481	2730	3383	3570	3660	3376	4822	3954	3608	2247	2067	1960	36858
1972	1628	2337	5301	2929	4842	6071	5311	3617	3693	2304	1937	1693	41663
1973	717	2755	3324	4006	5337	4390	5861	3400	2108	907	1058	849	34712
1974	1217	2532	5711	2385	3229	4425	4210	3981	4080	2563	2548	1598	38479
1975	7497	2363	6189	3087	2799	3844	5202	3684	5226	3362	2424	1381	47058
1976	1816	995	2401	2131	2157	3555	3123	3453	3315	1584	1774	1671	27975
1977	470	2192	2574	3103	3156	3849	3711	5688	2482	3066	2272	1530	34093
1978	1664	125	1615	2963	3172	3757	4569	3310	4102	2366	1280	1265	30188
1979	780	1036	3833	4884	5232	3101	3112	2946	2939	2261	1625	1778	33527
1980	1813	1480	1016	2355	3987	2180	3457	3891	3985	3013	1223	1027	29427
1981	973	1469	2991	2745	3252	4234	4478	4061	3665	2953	978	1621	33420
1982	1812	1863	2734	2889	2527	4132	4104	3413	2337	1549	1316	415	29091
1983	299	325	384	883	667	905	1030	1097	246	48	0	0	5884
1984	0	0	304	222	2032	2699	565	419	411	495	266	0	7413
1985	15	91	105	269	2252	539	1964	1314	1312	411	247	7	8526
1986	3646	412	1477	991	1290	1467	1420	1577	1145	1059	699	408	15591
1987	514	1013	1080	2518	1936	1735	2842	2517	2314	1214	696	407	18786
1988	277	804	2650	1632	1790	1805	2369	3016	2006	1382	845	681	19257
1989	483	725	1821	1753	2113	1588	2394	2327	1314	1016	608	603	16745
1990	430	1141	945	638	970	1729	1793	1781	1550	719	578	575	12849

Other California Users Consumptive Use - Parker Dam to Imperial Dam (Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1964	978	1498	2216	1798	1969	2446	2327	2162	1770	1100	860	643	19767
1965	664	1509	2099	1400	1824	2395	2667	2472	2121	1251	695	346	19443
1966	211	897	1572	1643	1686	1889	2168	2043	1774	838	841	742	16304
1967	754	1271	1613	1542	1870	2040	2279	2077	1648	1372	966	723	18155
1968	852	1481	1936	1689	1977	2075	1813	3028	2094	1261	1032	1289	20527
1969	1066	1804	1799	1878	2265	1874	2223	2170	2067	969	678	1516	20309
1970	770	1277	944	1499	1407	1857	1949	1564	1090	731	920	525	14533
1971	595	770	1149	1868	1865	2321	2417	1953	1675	482	865	1118	17078
1972	568	541	1036	1158	1390	1188	1621	1768	1617	510	166	502	12065
1973	139	213	229	361	320	393	428	374	368	258	107	55	3245
1974	17	173	158	319	411	505	437	319	437	170	158	65	3169
1975	240	127	634	759	1074	1092	1121	1203	987	1053	42	11	8343
1976	72	46	241	315	261	584	520	472	233	109	93	44	2990
1977	2	11	13	16	16	20	19	29	13	16	11	7	173
1978	6	8	10	37	21	34	32	26	27	6	3	2	212
1979	4	2	26	18	17	32	39	43	24	5	3	3	216
1980	2	10	22	30	19	30	37	55	36	20	5	4	270
1981	8	13	25	24	28	36	38	35	31	25	8	14	285
1982	7	14	36	47	56	63	60	72	52	31	15	6	459
1983	8	9	10	24	18	24	28	29	7	1	0	0	158
1984	0	0	8	6	56	75	16	12	11	14	7	1	206
1985	0	2	3	7	54	13	47	32	32	10	6	0	206
1986	47	5	19	13	16	19	18	20	15	14	9	5	200
1987	11	9	23	20	30	35	29	38	39	24	17	9	284
1988	5	10	20	13	24	34	35	29	27	21	27	21	266
1989	9	13	32	19	31	28	27	14	26	19	15	13	246
1990	13	11	18	20	24	29	32	31	24	20	14	14	250

Consumptive Use by Phreatophytes Parker Dam to Imperial Dam (Acre-Feet)

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1906	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1907	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1908	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1909	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1910	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1911	5465	11151	22559	36497	60961	84405	100921	87520	60415	34425	14847	7234	526400
1912	5459	11141	22537	36462	60903	84324	100825	87436	60358	34392	14833	7227	525896
1913	5459	11141	22537	36462	60903	84324	100825	87436	60358	34392	14833	7227	525896
1914	5454	11129	22513	36423	60838	84235	100718	87343	60293	34355	14817	7219	525336
1915	5409	11039	22331	36128	60345	83552	99902	86635	59805	34077	14697	7161	521080
1916	5442	11105	22465	36345	60709	84055	100503	87157	60165	34282	14785	7204	524216
1917	5442	11105	22465	36345	60709	84055	100503	87157	60165	34282	14785	7204	524216
1918	5436	11093	22441	36306	60644	83965	100395	87064	60100	34245	14769	7196	523656
1919	5429	11078	22410	36256	60559	83848	100256	86943	60017	34198	14749	7186	522928
1920	5423	11067	22388	36221	60501	83768	100159	86859	59959	34165	14735	7179	522424
1921	5418	11056	22367	36186	60443	83687	100063	86775	59901	34132	14721	7172	521920
1922	5396	11011	22276	36039	60196	83346	99635	86421	59657	33993	14660	7143	519792
1923	5396	11011	22276	36039	60196	83346	99635	86421	59657	33993	14660	7143	519792
1924	5408	11035	22324	36116	60326	83525	99869	86607	59786	34066	14692	7158	520912
1925	5401	11021	22295	36070	60248	83417	99740	86496	59708	34022	14673	7149	520240
1926	5395	11009	22271	36031	60183	83328	99633	86403	59644	33985	14657	7141	519680
1927	5389	10997	22247	35992	60118	83238	99526	86309	59580	33949	14642	7134	519120
1928	5384	10986	22225	35957	60060	83157	99429	86226	59522	33916	14627	7127	518616
1929	5384	10986	22225	35957	60060	83157	99429	86226	59522	33916	14627	7127	518616
1930	5379	10976	22204	35922	60002	83076	99333	86142	59464	33883	14613	7120	518112
1931	5372	10961	22175	35875	59924	82968	99204	86030	59387	33839	14594	7111	517440
1932	5365	10948	22148	35833	59852	82870	99086	85928	59316	33799	14577	7102	516824
1933	5360	10938	22127	35798	59794	82789	98989	85844	59258	33766	14563	7095	516320
1934	5354	10925	22100	35755	59723	82690	98871	85742	59188	33725	14545	7087	515704
1935	5354	10926	22104	35761	59732	82704	98887	85755	59197	33731	14548	7088	515788
1936	5384	10986	22225	35956	60059	83155	99427	86224	59521	33915	14627	7127	518605
1937	5336	10890	22030	35641	59532	82426	98555	85468	58999	33618	14499	7064	514058
1938	5336	10890	22030	35641	59532	82426	98555	85468	58999	33618	14499	7064	514058
1939	5330	10877	22004	35600	59463	82331	98441	85369	58931	33579	14482	7056	513464
1940	5325	10867	21984	35566	59408	82254	98349	85289	58875	33547	14468	7049	512982
1941	5325	10867	21984	35566	59408	82254	98349	85289	58875	33547	14468	7049	512982
1942	5319	10855	21959	35526	59340	82160	98237	85192	58808	33509	14452	7041	512399
1943	5256	10725	21697	35102	58632	81179	97065	84155	58106	33109	14279	6957	506283
1944	5192	10595	21434	34678	57923	80199	95892	83178	57405	32709	14107	6873	500166
1945	5129	10466	21172	34254	57215	79218	94719	82141	56703	32309	13934	6789	494050
1946	5065	10336	20910	33830	56507	78237	93547	81124	56001	31909	13762	6705	487934
1947	5002	10207	20648	33406	55798	77257	92374	80107	55299	31509	13589	6621	481817
1948	4938	10077	20386	32982	55090	76276	91201	79091	54597	31109	13417	6537	475701
1949	4875	9948	20124	32558	54382	75295	90029	78074	53895	30709	13244	6453	469585
1950	4811	9818	19862	32133	53673	74314	88856	77057	53193	30309	13072	6369	463468
1951	4748	9689	19600	31709	52965	73334	87684	76040	52491	29909	12899	6285	457352
1952	4684	9559	19338	31285	52257	72353	86511	75023	51789	29509	12727	6201	451235
1953	4621	9429	19075	30861	51548	71372	85338	74006	51087	29109	12554	6117	445119
1954	4557	9300	18813	30437	50840	70391	84166	72889	50385	28709	12382	6033	439003
1955	4494	9170	18551	30013	50132	69411	82993	71972	49683	28309	12209	5949	432886
1956	4430	9041	18289	29589	49423	68430	81820	70953	48981	27909	12037	5865	426770
1957	4367	8911	18027	29165	48715	67449	80648	69938	48279	27509	11864	5781	420654
1958	4303	8782	17765	28741	48007	66469	79475	68921	47577	27109	11692	5697	414537
1959	4240	8652	17503	28317	47298	65488	78303	67905	46875	26709	11519	5613	408421
1960	3820	7215	19184	29151	45300	67618	75897	66288	47814	24549	10538	4932	402305
1961	4637	8453	16461	27453	42129	64432	73451	63674	40135	23269	9635	4981	378710
1962	4256	7803	13341	30511	39553	57372	68418	63848	44932	24439	11697	5508	371681
1963	3574	9518	14610	22430	43106	51187	65302	57851	42619	24671	10149	4524	349540
1964	3200	6270	13618	22317	37680	52261	66663	57489	38684	26258	8568	5004	338011
1965	4134	6962	13103	22033	36440	46348	62162	56323	34778	23234	10627	4762	320905
1966	3145	5693	14539	24238	41031	52726	62241	56799	38225	21082	9848	4806	334373
1967	3560	7078	14302	17453	35841	46172	62760	55899	36405	22100	10582	3968	316121
1968	3470	8084	14391	21144	35995	49036	58038	47565	35358	20234	9329	3471	306115
1969	4153	5825	12202	21307	37023	44109	58206	55789	37603	17931	8965	4485	307597
1970	3056	6669	11463	16913	33538	46713	57436	50914	31941	17053	8225	3636	287559
1971	2919	5801	12038	17516	28277	42576	54271	46611	31699	15466	7254	3423	267851
1972	2520	5761	14712	19067	31027	43869	53096	41951	29861	15884	6479	3252	267478
1973	2472	5084	9294	16374	30572	42087	49026	41777	27275	16122	6889	3620	250590
1974	2361	4694	10977	16708	28562	42126	45424	39746	29975	16218	6723	2737	246250
1975	2373	4176	8459	11907	25008	35503	43982	37645	27294	13647	6093	3308	219396
1976	2486	4682	8223	13958	25972	33358	39092	32291	22924	12994	6270	3150	204998
1977	2465	4816	8116	16097	21021	37768	43441	37092	25584	15635	6813	3633	222483
1978	2636	4889	8309	14840	21523	38484	44599	36405	25917	17066	6238	2673	223580

Consumptive Use by Phreatophytes Parker Dam to Imperial Dam (Ac-Ft) page 2

<u>YEAR</u>	<u>IAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	2136	4446	9523	16155	26910	37300	43915	35311	28952	15890	6020	3578	230137
1980	3261	5558	9548	16359	27523	37260	44928	39862	27133	15552	6798	4107	237890
1981	3422	5296	10310	18769	28136	38101	45942	41867	28958	15903	7260	3830	247795
1982	2795	5781	10332	17384	28494	37093	46955	40121	27207	14335	6376	3177	240048
1983	1852	4785	11821	19970	30243	43917	50468	41187	30147	17467	7575	2820	262253
1984	-477	5290	13064	22238	32063	43377	53146	42157	30209	16794	8102	3796	269758
1985	807	5877	12587	18878	31323	43138	52978	43781	29602	20852	7890	3538	271251
1986	2499	5871	11080	21839	32612	45991	48661	46002	31452	19634	7672	3332	276644
1987	3677	6375	13693	19775	33567	48013	48661	47704	26979	16327	8079	3789	276639
1988	2982	5060	11080	20961	32706	45991	53155	44995	26434	17321	7125	3825	271637
1989	3351	5316	12606	18372	37830	42756	51259	44995	33162	15733	4931	3663	273975
1990	3245	5945	12606	16008	31576	41628	50634	42907	33771	18000	8016	4274	268611

Flow Gains from Parker Dam to Imperial Dam in Acre-Feet

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1905	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1906	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1907	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1908	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1909	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1910	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1911	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1912	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1913	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1914	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1915	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1916	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1917	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1918	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1919	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1920	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1921	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1922	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1923	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1924	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1925	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1926	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1927	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1928	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1929	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1930	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1931	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1932	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1933	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1934	-6135	140	-8092	11486	13490	12102	29520	40699	29035	22149	10806	4085	159285
1935	-8505	8825	13118	8625	11501	47852	74005	36685	11862	-21038	-21153	-6331	155447
1936	-17341	-17308	-37217	-12208	20880	20979	25103	25941	-8068	-13496	-12072	-17703	-42511
1937	-12403	-36437	-5541	1948	20754	17989	38548	19507	16218	-541	-11822	-16124	32096
1938	-16479	-902	-15458	6878	18307	22553	48482	40351	9053	-4344	1783	10335	120559
1939	-86676	-58923	39806	1595	11654	9942	37315	17832	99176	18583	-705	8319	97919
1940	-7043	25114	-4763	15476	30410	33177	33927	19195	4508	-38775	-23675	-28319	59233
1941	22744	-3843	30352	11164	-125275	82416	98702	-28199	-6523	-40709	-40511	-22062	-21743
1942	-72758	131607	23023	6039	22264	40465	110895	82179	27456	-40350	-38174	-24741	267606
1943	5319	6158	4014	-12423	-26962	11255	19345	35113	-7238	-22406	-2187	4538	14517
1944	-21615	17939	35425	27158	29040	34689	26638	15391	14117	-7202	10074	-29401	152254
1945	-14324	12775	5021	28907	25307	53963	41833	61943	2605	-81780	-544	-9519	126188
1946	-18882	5818	31508	-3774	3865	21550	59045	63813	-8139	-8183	-8401	-519	137702
1947	-7864	6462	46566	11172	16254	50662	44793	61763	1362	-35094	-2514	18751	212313
1948	-40968	9384	40019	750	35619	53318	47666	51309	20578	27748	-6357	10935	250001
1949	16313	26265	50466	51278	51836	81270	70620	47669	-4191	2019	17053	5916	416513
1950	21520	1757	27039	29664	50932	88615	98955	75705	46031	4342	2044	361	446966
1951	19046	33719	-29784	70775	40385	-12854	20133	49944	71160	24701	28569	6659	322452
1952	-6009	14407	61934	71400	17932	34003	101607	38757	-510	57874	30679	12260	434333
1953	22501	44763	38202	43976	22757	9092	68933	32046	58960	61630	26553	4171	433586
1954	-5324	51763	13653	17766	39445	83124	69942	66042	75124	40268	481	9812	462097
1955	8479	43827	20169	56847	62131	32126	95956	103692	50768	55544	42613	30604	602756
1956	-5924	23151	-3112	67190	51854	42554	82972	56118	53190	41970	47983	25632	483579
1957	25901	4213	3596	28752	50442	18577	76982	89147	58799	55007	-61672	-15594	334151
1958	21500	110453	-16783	41306	118054	63990	55412	79488	42829	59173	-2454	29962	602929
1959	12666	38052	12252	38033	51669	34962	45139	88207	64550	54260	40279	44017	524085
1960	33674	-798	-32403	37427	12986	6138	28445	50370	61426	34729	-15745	46638	262886
1961	-16217	2171	-17504	17323	16415	19001	22990	90322	31437	59051	12335	22486	259810
1962	9843	-31589	-29554	10322	28322	9602	27689	66527	51705	29081	27637	22523	222109
1963	-11379	-28953	-41674	21612	-7296	-13502	8914	71382	56003	65864	26810	16479	164259
1964	-8541	-10143	-6752	37138	37956	-16270	33373	25323	50681	38232	19850	25670	226516
1965	-12038	-33683	-9098	36893	40035	-14164	32297	23833	42617	55614	44508	29769	236582
1966	17298	-30956	2448	-5708	-3396	-8982	-3639	31052	58166	59053	35889	12930	164155
1967	6113	3815	-6019	30401	17722	7852	1208	52170	39690	28251	42756	7869	231828
1968	9259	-24541	-22977	17273	19761	-1805	2465	25534	10157	29583	15452	9794	89956
1969	14871	-39910	-44676	16267	23617	12216	20350	56832	45686	23172	24991	3541	156957
1970	-1776	-34621	-39994	18766	-2525	-20365	3358	39470	6105	22813	31866	8265	31361
1971	-232	-28030	-42270	-8045	-16560	-28379	-19919	38031	18454	41271	29534	12111	-4052
1972	5455	-23140	-36169	-9448	-9577	9796	-31940	52856	5298	80535	13842	-17554	39952
1973	6885	2280	-47382	-10918	18505	570	-553	32830	6771	25319	25088	13780	73174
1974	14846	-9281	-48384	-34037	-5997	-16355	19814	54679	43391	53255	34732	-2939	103724
1975	16370	-5432	-41747	-22439	10647	-9219	-11751	3063	15413	33206	25987	14967	29064
1976	180	-8787	-38789	8685	24803	-12047	13909	-29041	107855	43984	32943	13296	156993
1977	6421	-38657	-25182	-19331	-5916	-7502	-30505	67449	75885	38298	26054	21233	108247
1978	22025	-27885	-55324	-17277	288	-10585	-8847	21599	23291	34317	24304	20872	26779

Flow Gains from Parker Dam to Imperial Dam in Acre—Feet

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	22322	-21063	-35575	-35610	-3610	-27263	-22388	31289	28077	37586	23524	17514	14803
1980	13411	-22174	-107565	-8622	-479	-74588	7354	-13605	2032	-13951	-13139	6224	-225100
1981	46820	-13601	-4224	2481	39601	-16116	8219	30409	60508	58125	37559	108	249890
1982	13068	-50673	-25881	-14959	5239	46271	25560	55790	25785	24517	38593	-28706	114602
1983	-139050	84999	-19376	-98980	-46354	-123582	-57438	-7154	-26634	48737	28204	-3505	-362132
1984	-81728	-16032	-41853	13878	-27518	-79143	-30476	5616	-35696	-57811	-59957	-35321	-446042
1985	-61691	-57104	-9098	-20350	-77366	-51343	-8700	-11676	32545	28957	-38539	-61399	-335764
1986	-61130	-16693	-57889	-1396	-108603	43840	17240	-11670	-13777	43216	-7666	-57398	-231929
1987	-46672	7356	37213	36566	43823	27553	41047	41527	26027	43353	22987	-12097	268683
1988	10663	12661	12041	37448	15063	19725	13111	50432	17747	16291	21834	19356	246373
1989	-370	-30855	7119	-11932	51331	17986	29762	63551	36583	4359	46245	48204	261984
1990	22947	-28681	-11185	-19105	-1272	2612	29317	46736	42847	295	18577	23124	126213

APPENDIX 6B
SALT MODEL STATIONS
PARKER DAM TO IMPERIAL DAM

Colorado River below Parker Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	600647	430680	656577	524642	462950	609936	325635	246631	267135	376172	458605	335008	5294618
1936	353584	393379	610159	612221	509513	409589	393091	339404	296707	259168	237143	258995	4672953
1937	283347	485166	531117	581452	558726	579518	691703	662462	564985	472075	388353	361286	6160190
1938	341623	332660	503133	581513	564455	602997	596974	567813	486584	502390	367304	335628	5783074
1939	594225	1311045	683407	617226	594249	623966	676900	687001	944688	671755	676809	700768	8782039
1940	729161	486910	585981	690870	556291	644032	693547	684869	724637	857698	785972	911096	8351064
1941	677046	631587	834081	669587	1482810	1759748	1064871	1310617	1476781	1530804	1653136	1982189	15073257
1942	1955218	1485369	1499280	1146137	1619618	1557444	1231772	883328	786025	822557	946977	1057243	14990968
1943	902530	690216	832658	835059	912155	920106	1020825	944370	948731	1073148	1032104	1088970	11200872
1944	1139785	1151761	1264045	1144073	1097548	951378	987399	1079568	1022596	1089806	1097181	1135681	13160821
1945	1130411	1008299	1170947	929212	913264	864666	844740	689263	710982	929746	959887	1007031	11158448
1946	943281	950504	876784	769370	808036	694291	729962	660509	668778	697977	725274	800284	9325050
1947	874198	837363	881836	748887	851667	808417	794755	838548	745190	744107	751018	954020	9830016
1948	1054400	1014596	1001130	979365	1016440	899859	989539	878029	819935	765199	871850	1008723	11299065
1949	1036439	1008073	1075862	983213	861200	814431	812899	849534	902921	923642	864869	1025472	11158555
1950	923556	894620	1066141	873827	913370	757621	746474	713418	620079	589021	489157	493788	9081072
1951	482876	447941	671321	716093	623746	792912	870453	861347	657286	649233	504752	637162	7915122
1952	1003076	1022545	1371454	1255298	1387590	1312357	1084295	1062761	1017084	892667	838984	1207521	13455632
1953	1127860	950823	903266	765890	872628	863239	989303	944977	729501	561404	468822	558619	9736332
1954	718870	632681	776455	850056	985963	856827	970565	954888	733304	618596	621872	648940	9369027
1955	736512	623788	805592	846609	880552	991597	1077825	964192	786859	559451	410429	314572	8997978
1956	350765	387623	710842	786624	771371	916729	1009740	953196	738479	573534	358497	308131	7865531
1957	255595	378673	651202	802461	695551	831725	945809	861648	687512	514054	774425	937084	8335739
1958	1173057	514855	1192450	1149445	850305	723208	785827	729626	601230	515817	525961	639852	9401633
1959	580444	515426	617820	748412	621741	697275	830099	739179	574505	474108	341920	349196	7090125
1960	375734	410663	694948	760049	690899	813875	912083	802970	590638	454456	368128	300261	7174704
1961	358201	430354	712538	697525	671406	792438	868445	680221	583386	393147	304252	191758	6683671
1962	318693	362034	681927	756327	689309	779916	882550	820975	640726	479666	438213	286759	7137095
1963	348371	458415	708811	659178	668611	788783	864707	751677	574182	388256	296907	274830	6782728
1964	327046	431270	575228	592015	554084	700548	819456	756907	572662	400808	273516	246518	6250058
1965	291103	427158	651618	604787	644622	774830	926862	946254	655138	425567	230704	168853	6747496
1966	156954	443377	661836	792947	744338	836375	947854	876832	581742	347479	250346	315619	6955699
1967	309205	427083	637749	593919	626875	687680	779517	692547	456867	410410	232661	161007	6035520
1968	323611	417636	645560	671835	604347	692854	752021	702184	568242	397561	305405	309579	6390835
1969	252996	451100	717242	725379	439554	695619	794106	749075	484036	439009	226374	320708	6495198
1970	383060	456639	674918	778294	684574	733161	815467	687711	541329	467094	317180	343327	6881854
1971	350252	505387	764588	776727	684788	775676	896765	702725	570142	408829	314078	370898	7120855
1972	362790	491281	757551	779838	705784	671213	858481	704795	558992	217790	276239	394159	6778913
1973	359199	347973	597761	758320	683747	650267	807899	696481	608734	460960	300887	330232	6602460
1974	236187	467819	673292	839190	732256	757966	827060	771554	584059	379662	268907	310883	6848835
1975	348463	432709	662501	763504	744821	666133	780424	756747	613162	448793	319921	342827	6880005
1976	338023	346512	764226	725820	651393	674056	734123	781349	368191	325803	231901	338428	6279825
1977	245834	477454	648238	765281	608570	699941	880117	631462	425310	324205	269852	293841	6270105
1978	131830	376274	642591	787621	635562	712067	841144	735262	536522	342674	254678	261248	6257473
1979	146422	323726	539775	737072	748736	811502	908804	782194	686135	481220	353710	338101	6857797
1980	300654	376902	947284	1087630	923066	1137860	1219814	1145957	940632	834300	756948	704883	10375330
1981	455953	446671	683028	874875	660548	795986	905257	847141	540297	313495	226705	289465	7039421
1982	326887	477526	635060	832024	641690	596661	733565	620477	489989	347764	211734	258327	6171704
1983	980794	390489	549729	998633	1078949	1530963	2283192	2276776	2081498	1946235	1380513	1284979	16782750
1984	1490092	1422099	1504228	1386562	1399589	1613274	1682024	1531054	1320024	1249000	1194000	1200000	16991946
1985	1203000	1153000	1072000	932000	1068000	1196000	1227000	1211000	1020000	774000	727000	850000	12433000
1986	971000	744000	1048000	957000	1315000	1184000	1106000	1044000	937000	763000	702000	842000	11613000
1987	972000	764000	682000	587000	542000	582000	627000	634000	517000	422000	256000	404000	6989000
1988	427000	366000	535000	523000	552000	564000	663000	601000	425000	334000	263000	262000	5515000
1989	207000	333000	530000	636000	534000	557000	634000	530000	442000	384000	241000	227000	5255000
1990	271429	392877	561913	666949	676921	675382	707906	658063	478043	406538	324241	309094	6129436

Colorado River above Imperial Dam – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	499068	416978	629205	412463	419073	498146	277360	228081	248834	319934	524181	368351	4841674
1936	341025	358661	549545	547058	454583	319398	348148	315992	272158	264124	254185	259802	4284679
1937	280471	396891	506028	521155	447633	485475	652523	592311	490963	447146	378817	337010	5536423
1938	338315	262345	524310	560497	527158	542211	515650	517700	461010	489236	374330	342022	5454784
1939	526935	1331719	721772	579254	546947	542541	604561	609827	747426	700567	682615	717540	8311704
1940	733339	499689	556376	657798	501516	564577	597593	590817	651280	811838	791231	803478	7759532
1941	619196	516130	714077	508743	1105766	1705010	944965	1164564	1430321	1479306	1624099	2013142	13825319
1942	1948563	1657642	1513442	1085834	1574973	1515515	1227105	827076	725622	725513	917926	1090152	14809363
1943	946333	666546	778666	750301	800931	829314	919924	860472	851366	1000941	1025662	1088016	10518472
1944	1071140	1124477	1218453	1100623	1047464	898028	904705	998763	970549	1021165	998353	998851	12352571
1945	1126925	973524	1079424	854528	841576	790445	775119	673336	676872	799186	895862	992455	10479252
1946	920537	903676	861593	721487	761022	626346	679828	625954	597899	661782	702665	771356	8834145
1947	871783	815333	891971	729263	828874	792254	736540	817488	723836	705260	764171	901552	9578325
1948	1064915	1059578	1019604	955285	998846	858512	946497	843441	798882	800760	813672	1022214	11182206
1949	1121537	1019801	1064217	981506	857010	802217	781885	822246	858177	904175	777131	891602	10881504
1950	953964	871229	1015679	849964	917023	750788	724088	661556	560652	536317	461045	495164	8797469
1951	511836	461048	588263	688460	581138	667026	771966	790900	620777	632264	519265	642850	7475003
1952	944042	995009	1255093	1195740	1300353	1268168	1122954	1052495	1032106	1005335	869970	933122	12974387
1953	896996	884516	850257	731633	821103	776566	910271	849413	701454	587603	471826	562884	9044522
1954	695375	590234	646288	697119	895618	795001	865648	874842	706358	609290	589988	635938	8601699
1955	727755	593998	696997	755624	804498	846322	1004890	914004	721852	578404	448504	368954	8461812
1956	369582	423902	658472	768388	711503	796265	898873	860369	709089	583236	431738	382846	7594263
1957	340324	519182	628744	773617	677425	748287	901372	854826	706047	593266	776421	1055611	8575122
1958	1339922	666403	1236831	1255283	1004256	761343	789510	769553	644923	606539	573722	714129	10362414
1959	642424	565864	609499	749949	657465	688005	805496	810446	643478	578653	434299	449646	7635224
1960	446110	428847	642031	758111	688814	778126	887614	824746	657448	525545	402464	390220	7430076
1961	377595	434407	691858	715873	676205	749204	814613	726513	590927	473879	354640	259408	6865122
1962	377473	342756	647345	747512	690078	728760	827575	812424	663036	516864	496610	349582	7199815
1963	379643	435544	678191	713074	661206	745004	823662	799813	633891	503146	384388	350827	7108389
1964	378170	448201	598220	651151	586054	636598	789902	751903	615897	471053	344260	323729	6595138
1965	330429	395091	636367	638703	652516	693068	858816	889363	674633	513287	336181	293763	6912217
1966	231736	400679	624366	761433	700138	775717	876152	865669	626584	473482	337455	375713	7049124
1967	367043	430477	671396	637963	633016	660491	736306	739231	517752	465667	327380	237984	6424706
1968	395525	407895	621609	683865	607010	647141	698178	687063	572157	480157	369816	370852	6541268
1969	337531	437292	683110	740789	657232	650167	724509	738116	544486	509253	297631	379079	6699195
1970	437227	434330	665304	801899	651096	671162	743327	689242	542785	524265	382906	405516	6949059
1971	415213	474239	725984	760601	646366	691947	796369	711258	566902	478462	380822	415617	7063780
1972	421552	459883	710899	743947	657630	643756	753252	711624	557179	374913	333006	415012	6782653
1973	434270	368797	585394	724771	663310	603271	717702	692310	620237	524723	382292	404951	6722028
1974	323208	465579	640981	791006	712390	692742	796663	797767	622217	474504	357849	367549	7042455
1975	410738	437155	620899	730285	722351	623256	712119	724280	623356	520365	401103	414284	6940191
1976	402188	387885	706587	740850	656045	615070	698472	721670	492136	427496	323314	416872	6588585
1977	326232	435645	626006	738819	597469	638165	782015	658360	484465	381211	327250	356815	6352452
1978	228966	374508	577510	731817	617769	640941	765582	722213	555998	409260	329254	342873	6296691
1979	238121	307267	483158	655363	704587	713201	808347	769159	662666	541057	413585	387729	6684240
1980	366926	386421	807348	989829	891903	971724	1093023	1011684	861898	850916	778361	740745	9750778
1981	562778	420871	660829	795612	651145	685579	811574	785189	554901	414880	316438	335659	6995455
1982	391173	418586	582350	749262	591104	554329	641360	616735	483066	437123	312600	298205	6075893
1983	894337	495827	544273	854297	995268	1346948	2176117	2199588	2041048	2120627	1599045	1471284	16738659
1984	1618350	1443673	1482053	1423063	1431232	1576364	1695365	1638236	1445389	1325000	1207000	1262000	17547725
1985	1235000	1142000	1133000	980000	1018000	1117000	1171000	1154000	1068000	865000	758000	875000	12516000
1986	987000	759000	993000	934000	1191000	1176000	1078000	1027000	945000	834000	748000	868000	11540000
1987	991000	775000	733000	609000	559000	554000	604000	613000	535000	469000	347000	463000	7252000
1988	499000	395000	520000	553000	533000	544000	621000	623000	459000	403000	340000	333000	5823000
1989	279000	333000	522000	597000	540000	505000	592000	562000	490000	442000	345000	321000	5528000
1990	312531	359272	530698	604862	606774	619930	656090	594528	490970	440157	360480	346201	5922493

Palo Verde Irrigation District Salt Pickup in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	12182	5043	1148	-3195	-50	-1847	-4893	2297	5242	12482	10235	11284	49928
1936	14045	5814	1324	-3684	-58	-2130	-5641	2648	6044	14391	11800	13009	57562
1937	14180	5873	1337	-3722	-58	-2152	-5699	2675	6106	14538	11921	13142	58150
1938	13325	5516	1256	-3495	-55	-2021	-5352	2512	5734	13653	11195	12342	54610
1939	14742	6102	1390	-3867	-60	-2235	-5921	2779	6344	15105	12386	13654	60419
1940	16763	6939	1580	-4397	-69	-2542	-6733	3160	7214	17176	14084	15527	68702
1941	17735	7341	1672	-4652	-73	-2689	-7123	3343	7632	18171	14900	16427	72684
1942	19865	8223	1872	-5210	-81	-3012	-7978	3745	8548	20353	16689	18399	81413
1943	18533	7671	1747	-4861	-76	-2810	-7443	3494	7975	18989	15571	17166	75956
1944	19303	7990	1820	-5063	-79	-2927	-7753	3639	8307	19778	16218	17879	79112
1945	20333	8417	1917	-5333	-83	-3083	-8167	3833	8750	20833	17083	18833	83333
1946	21864	9050	2061	-5735	-90	-3315	-8782	4122	9409	22402	18370	20251	89607
1947	24876	10297	2345	-6325	-102	-3772	-9991	4690	10705	25488	20900	23041	101952
1948	27044	11194	2549	-7094	-111	-4101	-10862	5098	11638	27709	22721	25049	110834
1949	27430	11354	2586	-7195	-112	-4159	-11017	5171	11804	28105	23046	25406	112419
1950	26866	11121	2532	-7047	-110	-4074	-10790	5065	11561	27527	22572	24884	110107
1951	29251	12108	2757	-7672	-120	-4436	-11748	5515	12588	29971	24576	27093	119883
1952	30670	12695	2891	-8045	-126	-4651	-12318	5782	13198	31425	25768	28408	125697
1953	32468	13439	3060	-8516	-133	-4923	-13040	6121	13972	33266	27278	30072	133064
1954	32920	13627	3103	-8635	-135	-4992	-13222	6206	14167	33730	27659	30492	134920
1955	34325	14208	3236	-9003	-141	-5205	-13786	6471	14771	35169	28839	31793	140677
1956	35229	14583	3321	-9240	-144	-5342	-14149	6642	15160	36096	29596	32630	144384
1957	34942	14464	3294	-9165	-143	-5299	-14034	6587	15036	35801	29357	32364	143204
1958	35486	14689	3345	-9308	-145	-5381	-14253	6690	15271	36359	29814	32869	145406
1959	36779	15224	3467	-9647	-151	-5577	-14772	6934	15827	37683	30900	34065	150732
1960	37040	15332	3491	-9715	-152	-5617	-14877	6983	15939	37951	31120	34308	151803
1961	37832	15660	3566	-9923	-155	-5737	-15195	7132	16280	38763	31785	35041	155049
1962	38998	16143	3676	-10229	-160	-5914	-15663	7352	16782	39957	32765	36121	159828
1963	40397	16722	3808	-10596	-166	-6126	-16225	7616	17384	41391	33940	37417	165562
1964	40575	16795	3825	-10643	-166	-6153	-16296	7649	17460	41573	34089	37582	166290
1965	41128	17024	3877	-10788	-169	-6237	-16519	7754	17699	42140	34554	38094	168557
1966	42389	17546	3996	-11118	-174	-6428	-17025	7991	18241	43432	35614	39262	173726
1967	42738	17691	4029	-11210	-175	-6481	-17165	8057	18391	43789	35907	39585	175156
1968	42628	17645	4018	-11181	-175	-6464	-17121	8036	18344	43676	35814	39483	174703
1969	43272	17912	4079	-11350	-177	-6562	-17380	8158	18621	44336	36355	40080	177344
1970	42199	17468	-3978	-11069	-173	-6399	-16949	7956	18159	43237	35454	39086	164991
1971	39933	14537	12914	-1340	1519	-5360	-26331	21280	17875	31523	21555	28245	156350
1972	32899	8607	2917	-8891	-867	-412	-20379	3076	11781	66584	26710	27054	149079
1973	37903	29969	12725	-16068	-6167	-5459	-16303	1694	18784	36188	36430	25379	155075
1974	34780	7133	6988	-10593	1083	-8883	-8144	3979	-7509	32256	33051	36094	120235
1975	25990	9162	1605	-1813	-2175	1905	407	-69	13341	24702	29985	39193	142233
1976	31735	31543	-5136	5943	4132	4551	-7158	4007	41351	43133	40639	49025	243765
1977	38034	13766	4916	-7786	7489	-9770	-18147	25081	31945	32427	19610	31195	168760
1978	41594	7490	-6657	-22463	2957	-9339	-13557	9368	19356	33740	29902	36311	128702
1979	38869	11154	1666	-19779	-11144	-14669	-18814	-9054	-12096	28190	30705	24675	49703
1980	29806	28220	-47	-16431	10908	-11058	-8970	-5529	13606	54061	35264	37414	167244
1981	22317	-1602	-2575	-22885	-18893	-31827	-30368	-26369	5323	40247	42626	33502	9496
1982	24756	23991	2059	-16329	3434	-12412	-18245	4482	4033	33978	38701	47339	135787
1983	28540	13112	7380	-5062	-2126	-5284	-2468	25719	16422	45470	34881	38533	195117
1984	37221	10569	11143	-10067	3622	16574	40215	16164	23600	53691	51344	60433	314509
1985	45143	16174	-3277	4073	6729	1219	16681	16902	47454	52185	37644	45285	286212
1986	40133	22823	14952	11062	22370	16063	14147	18522	33459	42868	34362	44692	315453
1987	47267	15581	22956	7721	13088	3250	7444	8571	27837	38072	41387	41533	274687
1988	39807	16866	4039	19234	12070	10153	-5102	18429	30435	39183	31181	27590	243885
1989	22950	14956	3742	-768	8587	-5848	-13485	1189	16361	35761	32130	31767	147342
1990	35658	15367	5640	1942	-7397	-13825	-9196	1348	-26222	27828	27208	15817	73568

Colorado River Indian Reservation Salt Retention in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1960	361	-99	-148	-195	-163	-296	-326	-242	-44	167	212	162	-611
1961	996	-272	-408	-540	-452	-819	-902	-668	-122	460	587	447	-1693
1962	1681	-459	-688	-910	-762	-1381	-1521	-1127	-205	776	990	753	-2853
1963	2283	-624	-934	-1236	-1035	-1876	-2066	-1531	-279	1054	1345	1023	-3876
1964	3015	-824	-1234	-1633	-1367	-2478	-2729	-2022	-369	1393	1777	1352	-5119
1965	3763	-1028	-1540	-2038	-1706	-3092	-3405	-2523	-460	1738	2217	1686	-6388
1966	5001	-1367	-2046	-2709	-2267	-4110	-4526	-3354	-611	2310	2947	2242	-8490
1967	6691	-1829	-2738	-3624	-3033	-5498	-6055	-4487	-818	3090	3942	2999	-11360
1968	21204	-5796	-8676	-11484	-9612	-17424	-19188	-14220	-2592	9792	12492	9504	-36000
1969	11191	-3059	-4579	-6061	-5073	-9196	-10127	-7505	-1368	5168	6593	5016	-19000
1970	-13547	3703	5543	7337	6141	11132	12259	9085	1656	-6256	-7981	-6072	23000
1971	23524	-10816	-10538	-15105	-11452	-10684	-18399	-9442	-7958	9620	12421	11881	-36948
1972	26538	-14445	-6526	-12350	-9937	-12683	-9549	-7581	5335	26077	11587	9740	6206
1973	32840	-13391	-818	-9738	-11890	-18834	-27142	-18901	-12740	221	10882	7159	-62382
1974	21861	-9423	-8473	-19135	-9596	-18321	-23128	-13505	-1048	4893	18682	11912	-45281
1975	22456	-10983	-13328	-19463	-18413	-20072	-23003	-18017	-3772	8187	20316	7976	-68116
1976	18978	5764	-18706	-6473	-10786	-19857	-14363	-15351	9658	15334	13338	13110	-9354
1977	27021	-16219	-11758	-6377	-10964	-27826	-26279	-18097	-750	12668	10152	17408	-51021
1978	25616	12567	-11340	-23032	-9518	-24441	-23375	-28103	-8506	14415	20856	16683	-38178
1979	23037	-10	-11914	-8283	-10009	-25655	-38657	-22276	-9564	10816	13941	4445	-74129
1980	24463	14092	-4178	-27396	-3738	-25139	-31430	-34449	-18236	-12218	15093	11494	-91642
1981	26048	-9715	-18104	-22525	-14960	-38662	-37667	-26775	-3497	19071	14925	16672	-95189
1982	15246	-3179	-11420	-14998	-15469	-37022	-43044	-3448	-4694	13297	19078	21307	-64346
1983	20576	11829	-2597	-17804	-18617	-26378	-12994	13144	-3918	24537	17435	19416	24629
1984	30769	-2694	-5234	-2682	-5447	-19744	-13201	-2607	9285	20921	26712	39042	75120
1985	34152	14733	3554	-826	-2163	-5375	-14315	-23362	11138	20062	17900	21895	77393
1986	30162	8032	1260	17	-4061	-11596	-3488	742	17533	24365	20224	20949	104139
1987	19368	113	1368	-4920	-5546	-11999	-27133	-5442	-490	11254	23903	19741	20217
1988	25992	5599	-8832	1889	-17426	-24626	-21755	-9395	-969	13940	10059	13105	-12419
1989	24125	3634	-22861	-14153	-17914	-26992	-24626	-12946	-3489	13695	14548	10492	-56487
1990	20309	-998	-15692	-9131	-20940	-85324	-95513	-15884	-4925	10810	18928	5396	-192964

Parker to Imperial Export for Phreatophytes – Salt Load in Tons

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1935	9376	17796	33290	41706	55850	50896	46398	37613	29185	21676	13454	8531	365770
1936	6846	13970	25919	39365	57176	59090	60850	51890	35010	21909	11041	6470	389535
1937	5461	10774	22845	38899	59913	87158	110580	91246	61784	33376	14592	6725	543353
1938	5080	9738	22396	38293	64771	88839	97176	80494	55766	31090	13211	6197	513051
1939	4984	11389	23642	38128	64090	89017	106435	91431	60110	35278	15461	7581	547545
1940	5784	11831	24068	40027	67262	93128	111017	95115	65258	36956	15988	7286	573719
1941	5445	11362	22793	35673	60971	88145	100639	83623	57610	32687	13940	6952	519839
1942	5420	11098	22276	35780	60923	84150	99620	84494	57747	32275	13335	6332	513451
1943	4796	9865	20178	33125	55840	76711	91552	79924	54373	30462	12928	6175	475929
1944	4684	9888	20576	33990	57238	78837	92890	78993	53107	30002	12861	6291	479356
1945	4935	9839	19640	31618	53551	73652	88751	75266	50212	28626	12629	6245	454964
1946	4608	9426	19427	31752	53497	73243	86845	75251	51848	29612	12715	6109	454334
1947	4632	9525	19549	32222	54220	75206	89287	77087	52461	28772	11902	5913	460756
1948	4622	9111	18735	30557	51288	70445	83757	72030	48834	26790	11758	6010	433937
1949	4265	8494	17492	29081	48969	67890	79367	67104	45358	24941	10811	5368	409141
1950	4166	8542	17386	28659	47555	64447	76105	66635	46619	27186	11811	5742	404854
1951	4261	8818	18096	29520	49857	68526	81662	69889	47228	27554	11799	5726	422936
1952	4218	8606	17834	29729	50386	68506	78230	64276	41861	22636	9263	5102	400646
1953	3879	8475	17996	29558	48331	66408	78254	66873	45734	26170	11254	5470	408403
1954	4078	8603	17745	28705	49199	68970	82007	71496	49234	28064	12103	5949	426154
1955	4468	9374	19737	32596	55530	79102	93703	81441	56292	32286	14007	6954	485490
1956	5196	10364	21384	34617	58021	80772	96602	83647	58318	33449	14295	6918	503584
1957	5179	12206	20864	32911	54667	74592	88600	76282	52779	30026	12512	5815	466432
1958	4184	8597	16643	26485	43874	61058	72207	62080	43462	24643	10602	5093	378928
1959	3839	7895	16467	26530	44905	61825	72041	62254	43159	25026	10803	5248	379992
1960	3576	6675	18232	28174	45144	67038	74959	65842	48020	24802	10775	5016	398251
1961	4749	8604	16695	27970	43109	65968	75173	64986	41238	24020	10066	5276	387854
1962	4416	8180	13804	31803	41922	61014	72440	67444	47468	26234	12519	5934	393177
1963	3794	9943	15103	23070	44035	51621	64949	57122	42121	24390	10243	4596	350988
1964	3238	6206	13366	22057	38286	53550	68231	59191	40898	28478	9511	5670	348679
1965	4590	7658	14337	23899	41137	54076	71704	64719	40734	27734	12520	4995	368105
1966	3198	6471	16743	28013	46783	60000	70152	62757	41523	23128	11162	5244	375173
1967	3970	7638	15041	18499	37951	47507	63620	56581	37904	22925	11444	4595	327675
1968	3609	8252	14735	21777	37912	50876	60417	49856	37721	22122	10415	3803	321494
1969	4656	6286	12848	23217	40602	48677	64123	61295	41756	20016	10541	5229	339246
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1971	3380	6536	13336	19744	32096	47667	59698	51362	35020	17448	8287	3915	298490
1972	2878	6353	15920	20712	33868	46633	56024	44225	31739	17826	7205	3633	287017
1973	2736	5608	9442	16713	32766	44562	51163	43626	28583	17033	7595	3970	263798
1974	2637	4959	11403	17367	30082	43577	46373	40227	30729	17127	7325	2981	254786
1975	2529	4410	8759	12282	26168	36979	44741	38343	28027	14317	6552	3541	226647
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1986	1886	4472	8367	16573	24219	34444	36788	35064	23937	14914	5822	2543	209028
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1988	2325	3979	8591	16798	26602	37436	42671	36259	21824	14612	6029	3221	220346
1989	2946	4379	9986	14346	31406	36341	42672	37726	28853	13904	4505	3384	230449
1990	3232	5343	11131	14177	29033	38584	46077	40647	31144	16250	7694	4119	247431

Salt Load Gains – Parker Dam to Imperial Dam

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1905	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1906	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1907	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1908	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1909	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1910	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1911	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
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1916	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1917	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1918	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1919	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1920	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1921	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
1922	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
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1930	10807	-7610	-22686	-83	3536	-7909	9874	21979	21706	33701	27064	11305	101684
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1937	-11604	-83374	-3581	-17676	-51122	-4733	77099	18420	-18344	-6091	-6865	-30693	-138564
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1942	-21100	175148	34566	-19313	16359	45233	102931	24497	-11204	-85122	-32405	20842	250433
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1944	-83264	-25386	-26836	-4397	7233	28414	17949	-5451	-7247	-58417	-102185	-148418	-408006
1945	-18884	-33353	-73800	-37733	-18054	2514	27297	55506	7352	-122767	-68479	-27164	-307565
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1961	-12693	-3275	-7959	55701	47611	27652	35634	103478	32377	66449	29256	38332	412563
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1963	-3048	-30274	-20259	86326	35761	12092	38063	96111	84167	98943	65129	44199	507211
1964	16802	5518	31299	90203	69055	-6725	52244	44516	66304	58543	47943	46651	522350
1965	6551	-42461	-6331	66565	47494	-24541	16772	-2449	42070	75052	85660	93497	357881
1966	40592	-55140	-26769	4908	490	1660	10949	40249	67513	108009	65604	28318	286382
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1968	54099	-24930	-21910	33504	31138	-5797	4507	12479	20700	70834	51504	35097	261224
1969	57110	-28493	-29942	43916	53384	591	1779	34673	82217	51092	52036	28536	346899
1970	1914	-28514	12659	60800	10526	8350	21761	59919	20965	27025	31851	21274	247630
1971	51932	-49965	-48720	-10147	-19297	-41386	-32766	29173	5947	65178	65897	32270	48117
1972	55279	-48097	-40175	-18638	-23356	6905	-38375	40397	23480	134442	48849	7172	147884
1973	72744	-16928	-16468	-10506	66006	-15809	-49873	18830	8562	44829	63452	60469	165909
1974	76738	-13837	-36369	-39359	-463	-31085	992	48956	75348	84606	81898	35465	282896
1975	61276	-11289	-47776	-38587	-12540	-27875	-46974	-12072	21108	69374	78045	43781	76484
1976	54065	20588	-62892	16391	16321	-49301	-3580	-46678	115338	87387	70976	45874	264489
1977	72685	-66791	-30591	-6732	-7982	-41882	-63100	21001	52592	53703	55155	53008	88467
1978	84194	8316	-61544	-41700	-8383	-47327	-40561	-13812	18129	65159	72249	64897	99616

Salt Load Gains – Parker Dam to Imperial Dam

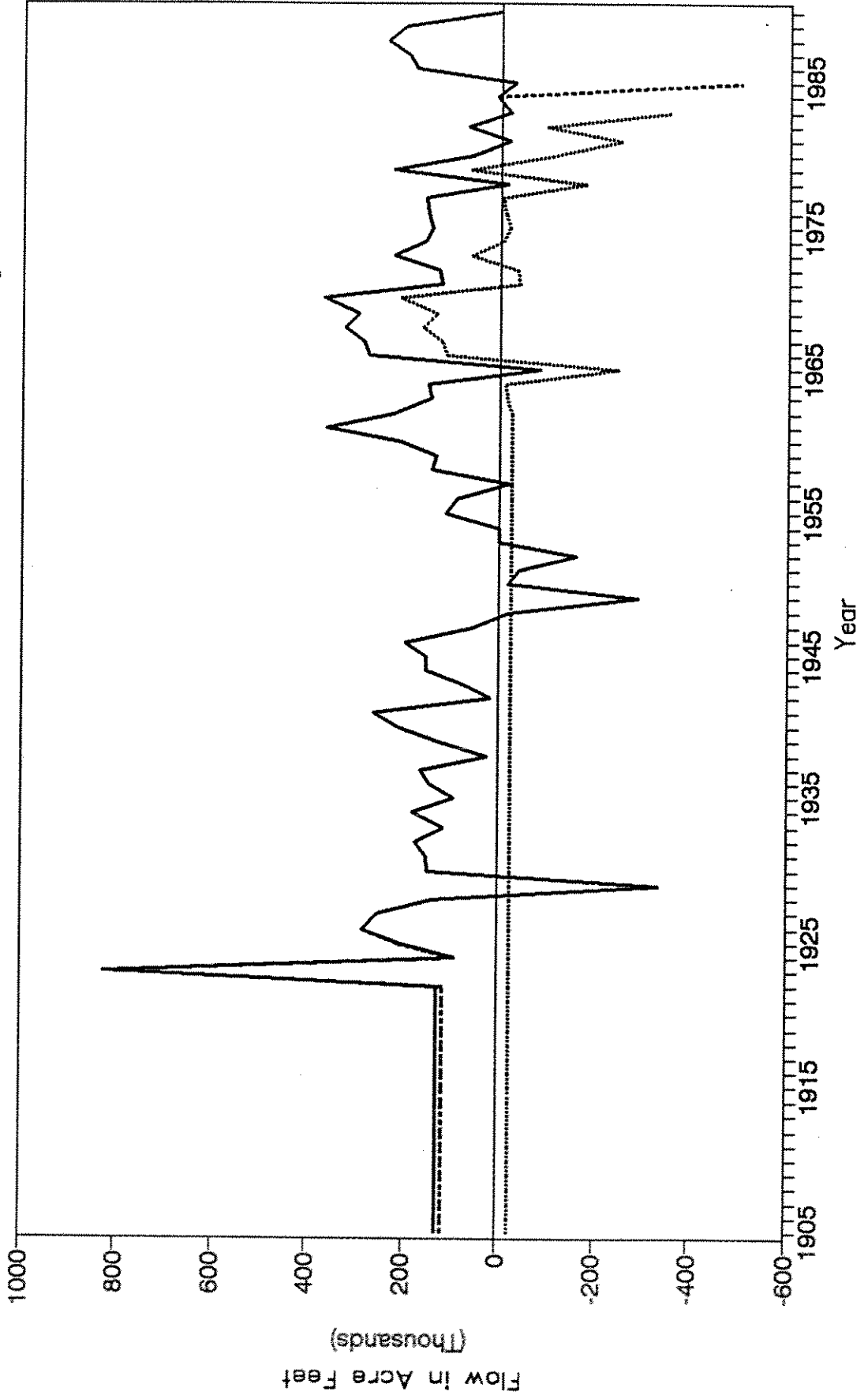
page 2

<u>YEAR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1979	78279	-22908	-60587	-53906	-15426	-71744	-76234	9169	8437	58629	49388	33179	-63724
1980	65025	1232	-135287	-92560	-18376	-142047	-104222	-123121	-84042	-34186	8266	14150	-645168
1981	114154	-28279	-27017	-59299	24094	-78027	-53850	-19564	35569	97416	70016	33571	108785
1982	57812	-80103	-55583	-63726	-39863	-28334	-68917	29844	13493	83773	88361	17392	-45850
1983	-92559	109028	-3568	-137435	-70027	-162178	-69320	-50885	-32582	169521	208108	169843	37945
1984	121366	13002	-26885	63921	51271	-35066	6564	126118	137232	57230	-4980	43676	553460
1985	21666	-7693	78326	58999	-33042	-51166	-44983	-62989	34781	75066	17307	4311	90583
1986	7915	4681	-60325	-17472	-126212	-1215	-8847	284	16011	67411	37684	4800	-75286
1987	-6141	318	40026	24871	25262	-4965	-19177	2482	10989	33145	80372	40230	227412
1988	60510	21712	-19280	29453	-21894	-17343	-15982	30435	24420	58369	61907	59736	272042
1989	76121	-6943	-24617	-38039	10905	-36803	-10469	55591	57005	49838	90923	76109	299620
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APPENDIX 7

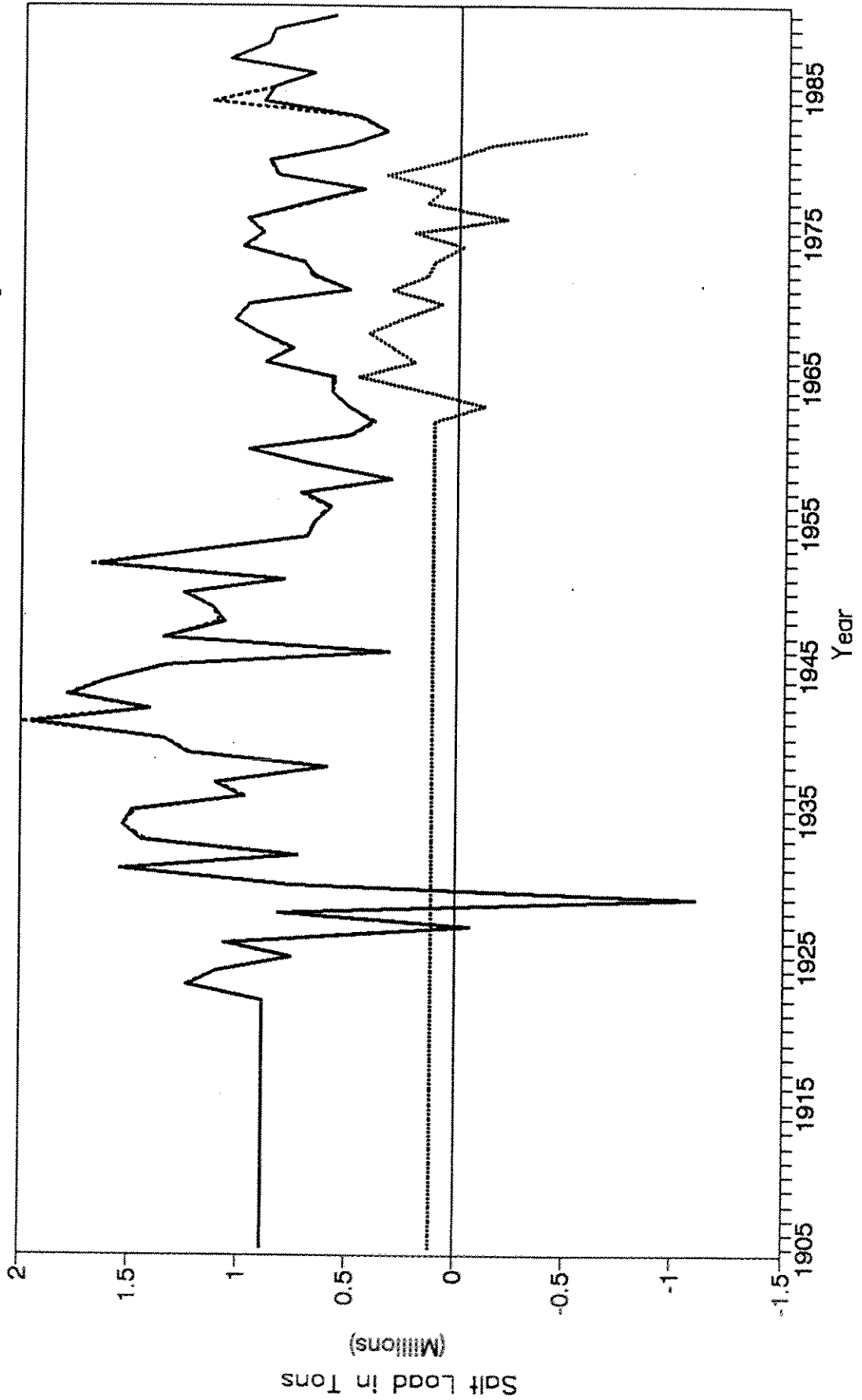
**GRAPHICAL COMPARISON OF ANNUAL TOTALS
FOR INFLOW AND GAINS CALCULATIONS**

Flow Gains - Lees Ferry to Grand Canyon



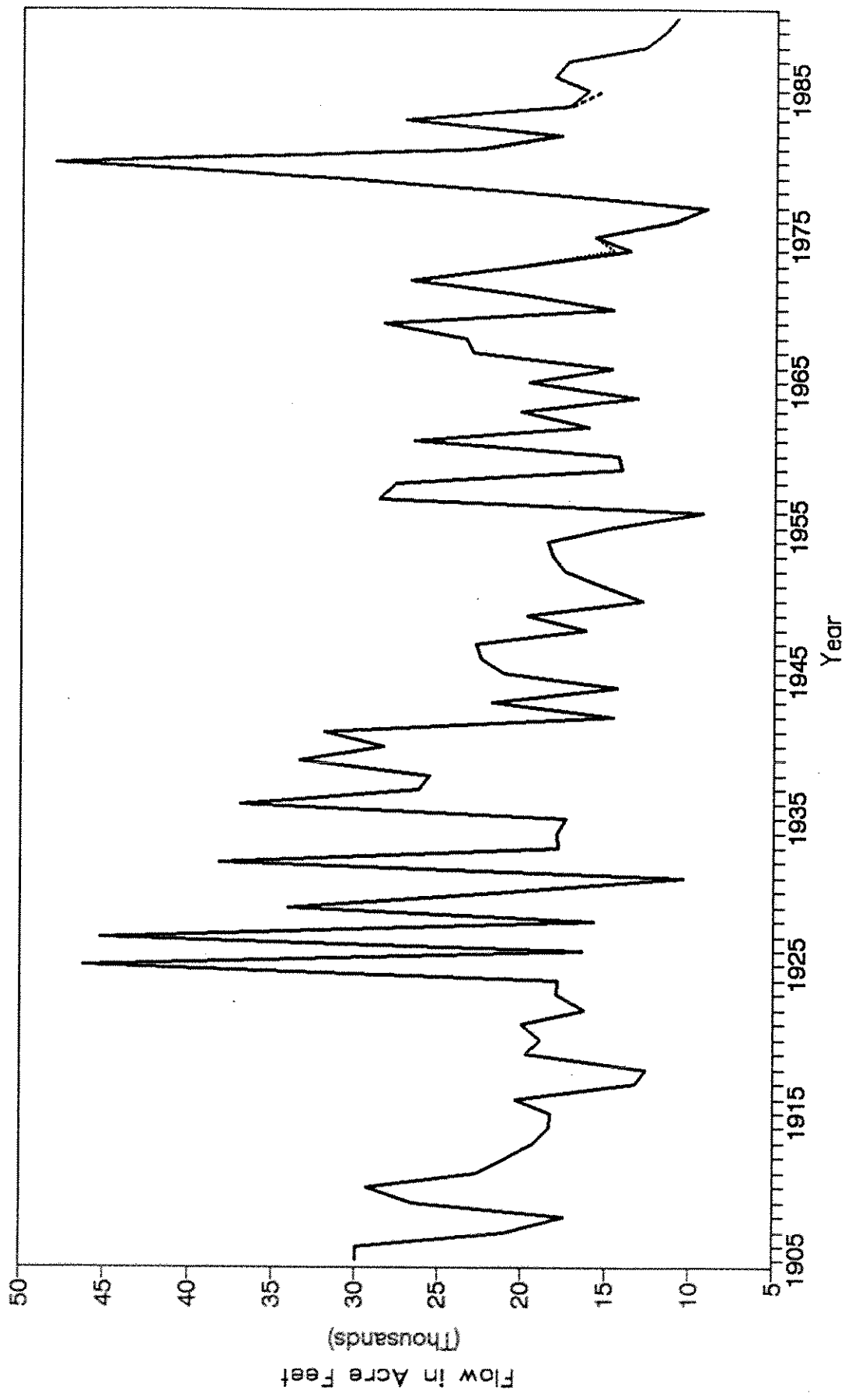
..... 1983 Database 1986 Database — 1990 Database

Salt Gains - Lees Ferry to Grand Canyon



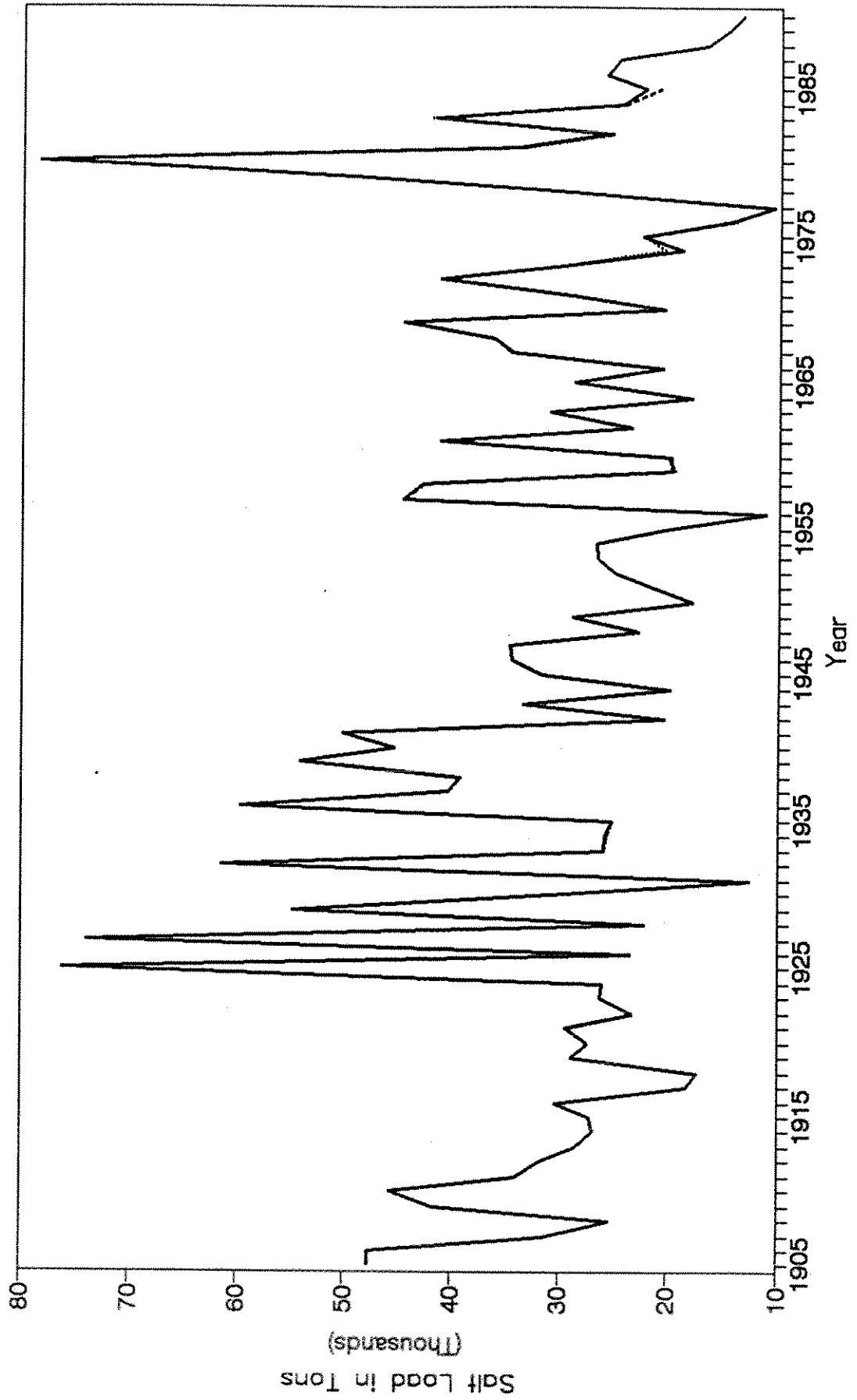
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Inflow from the Paria River



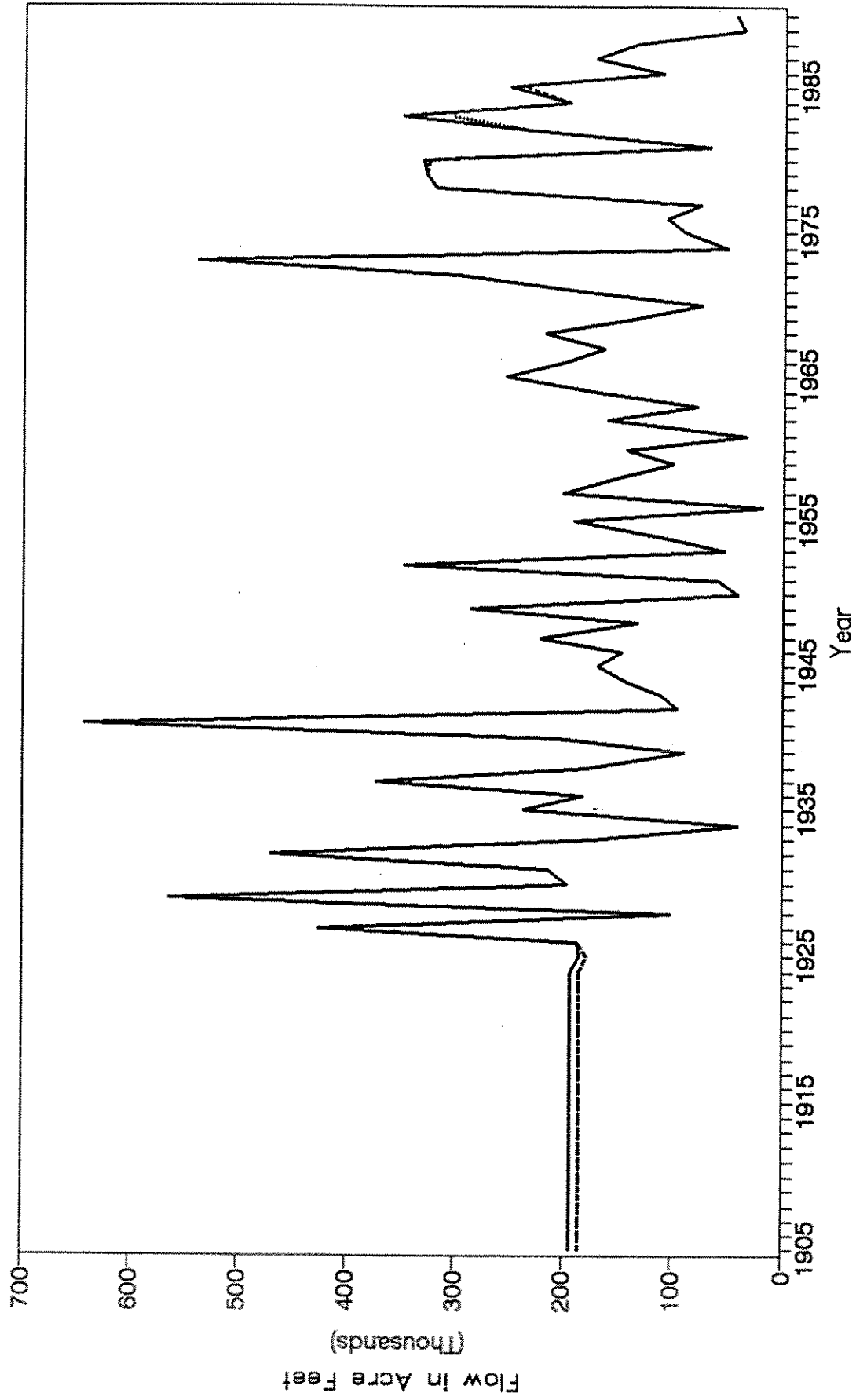
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Salt Load from Paria River



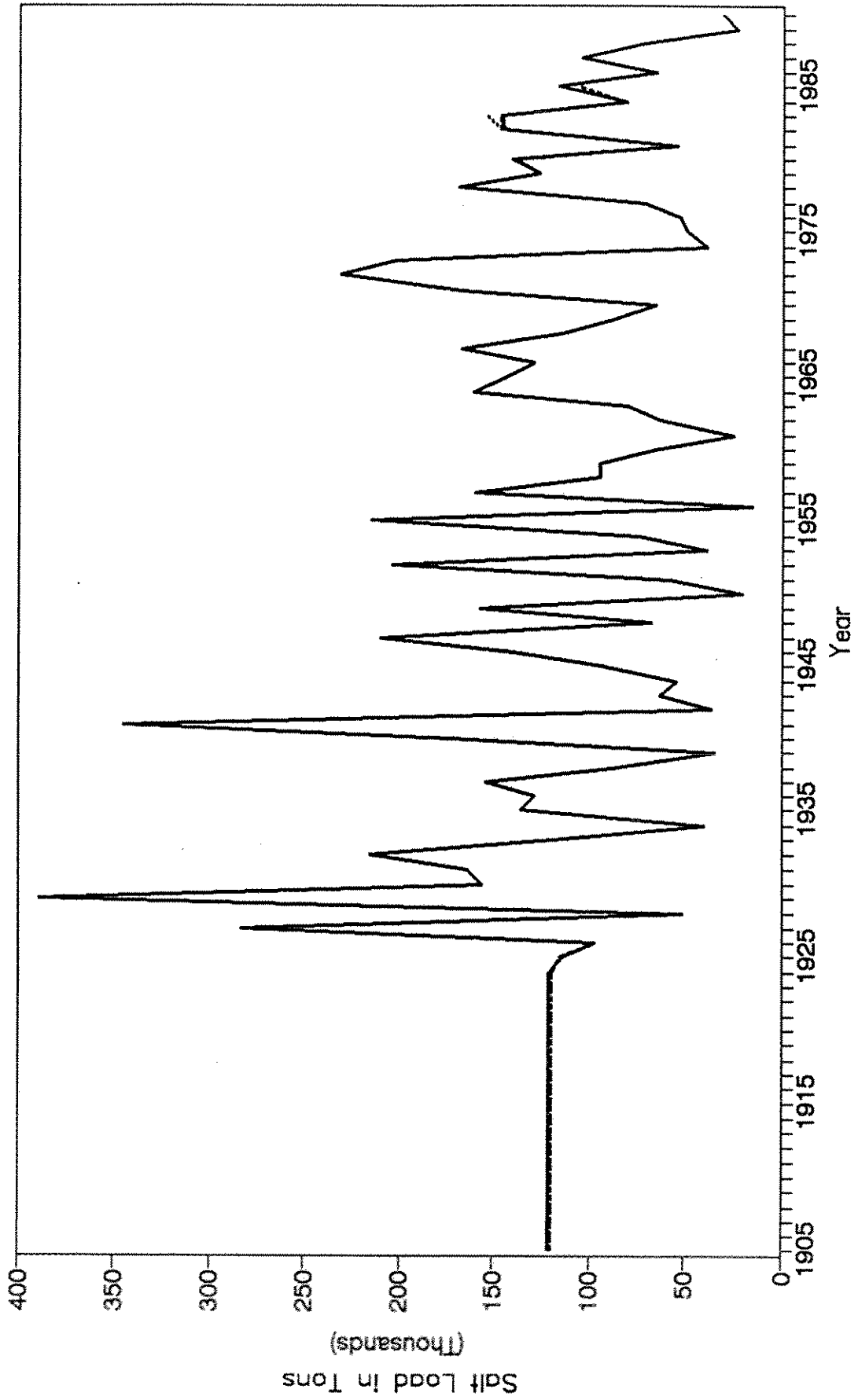
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Inflow from the Little Colorado River



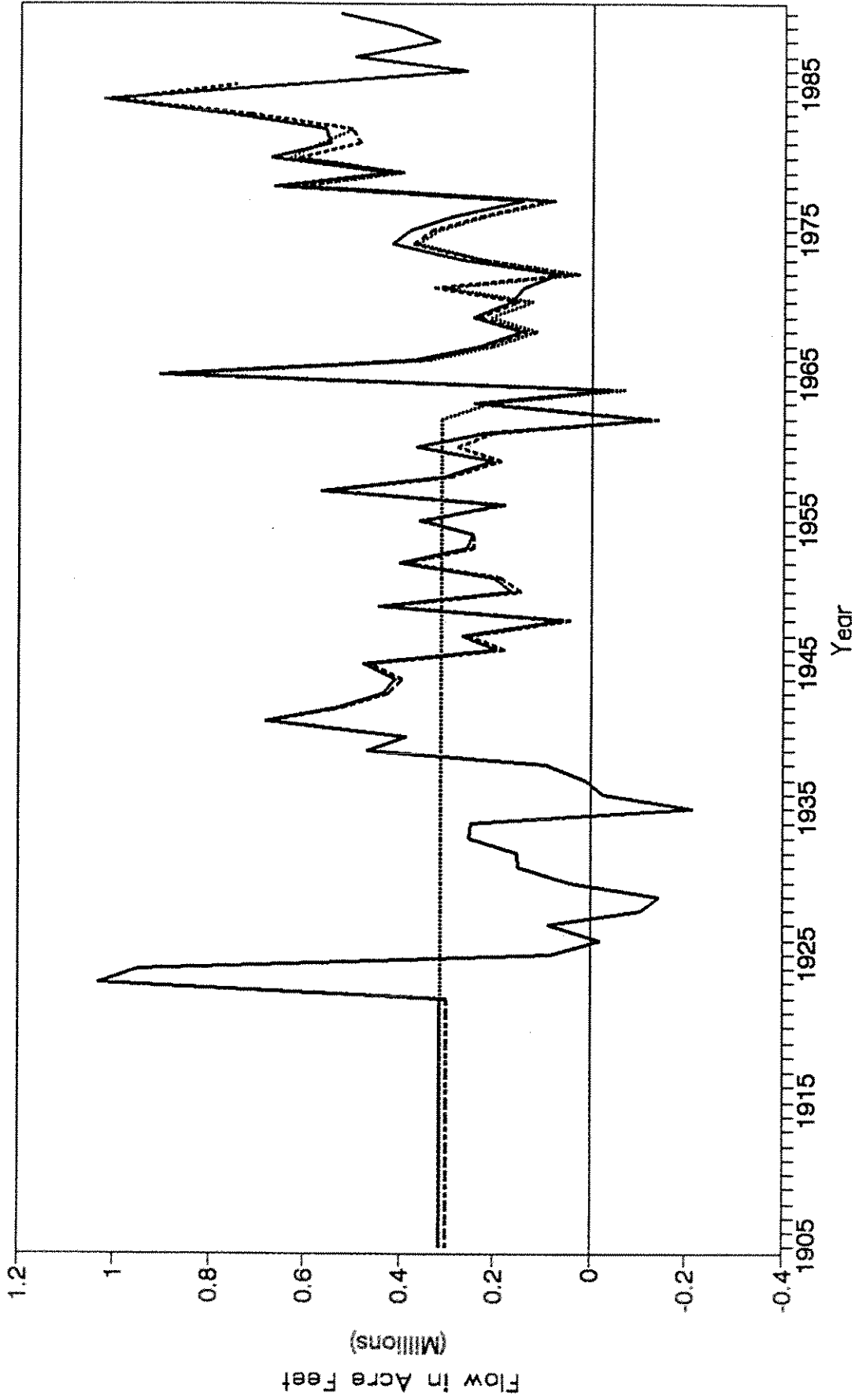
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Salt Load from Little Colorado River



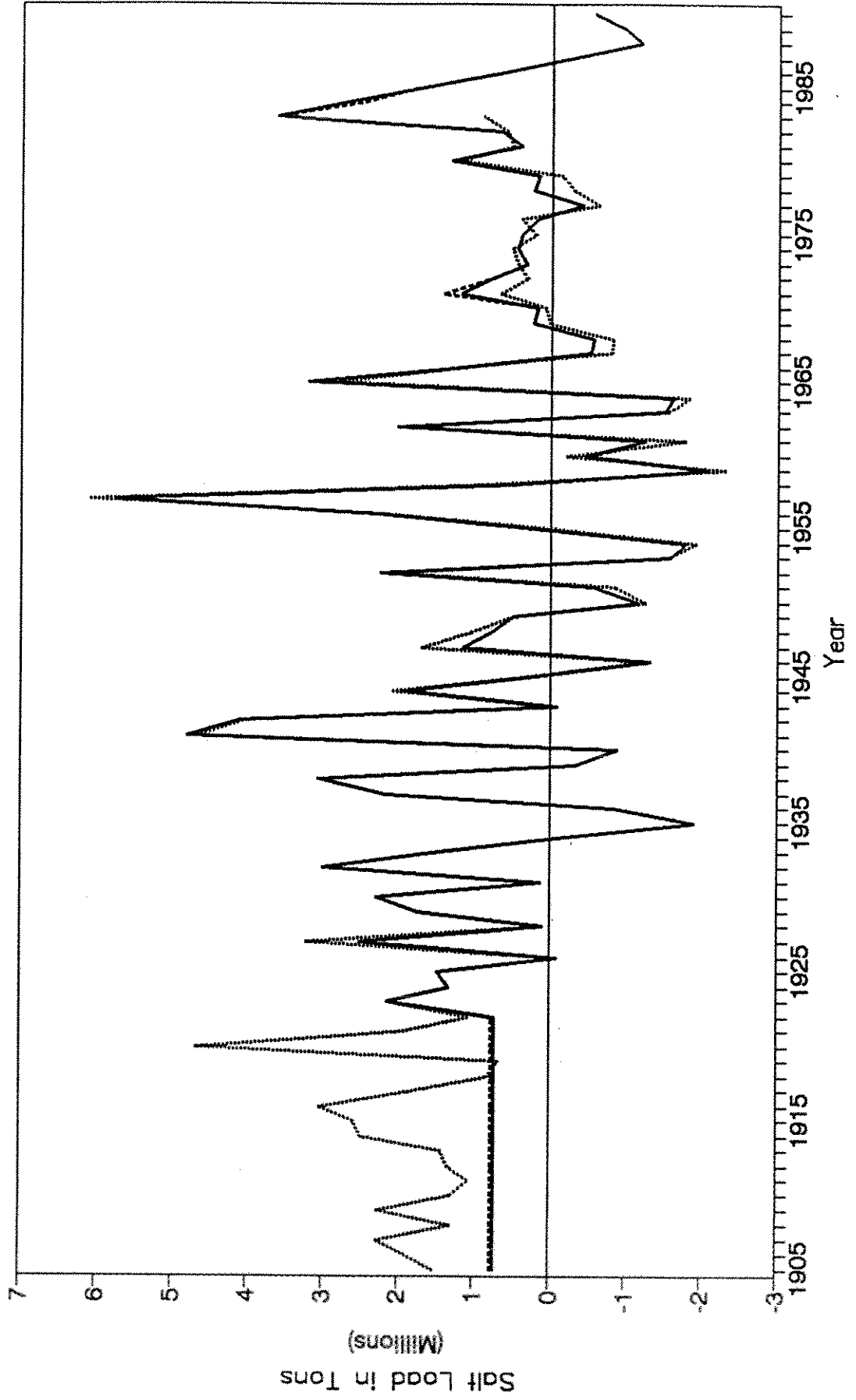
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Flow Gains - Grand Canyon to Hoover Dam



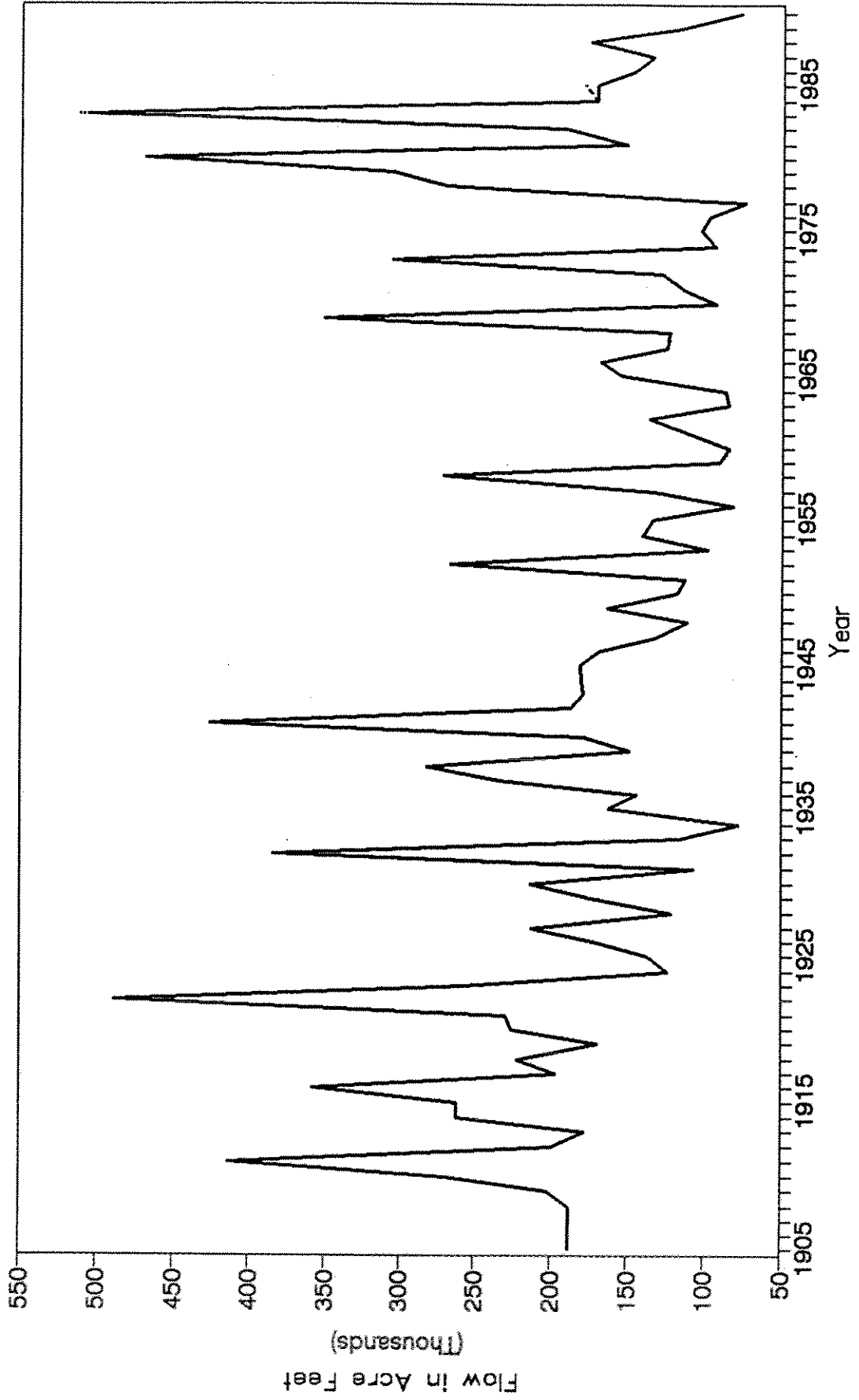
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Salt Gains - Grand Canyon to Hoover Dam



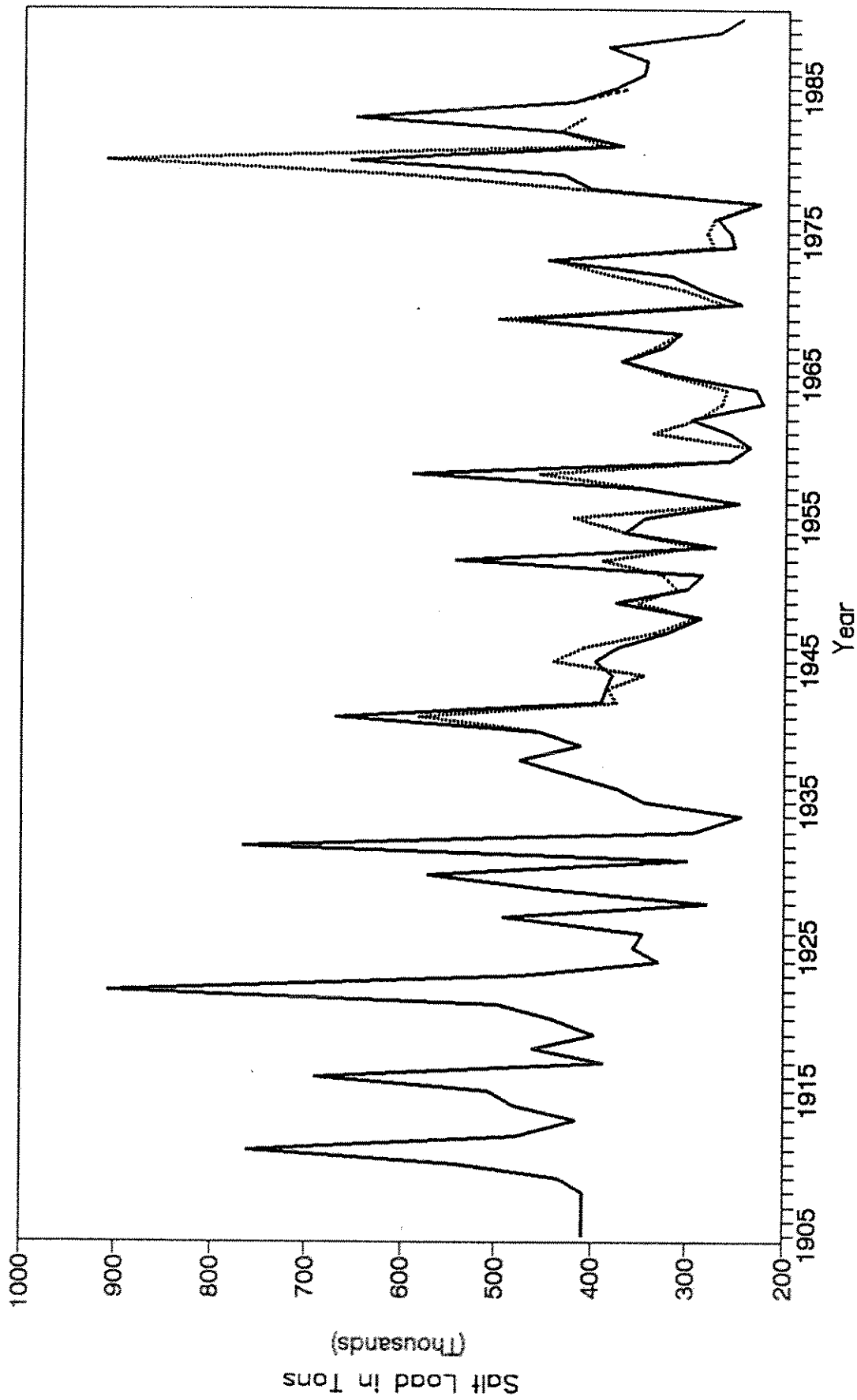
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Inflow from Virgin River



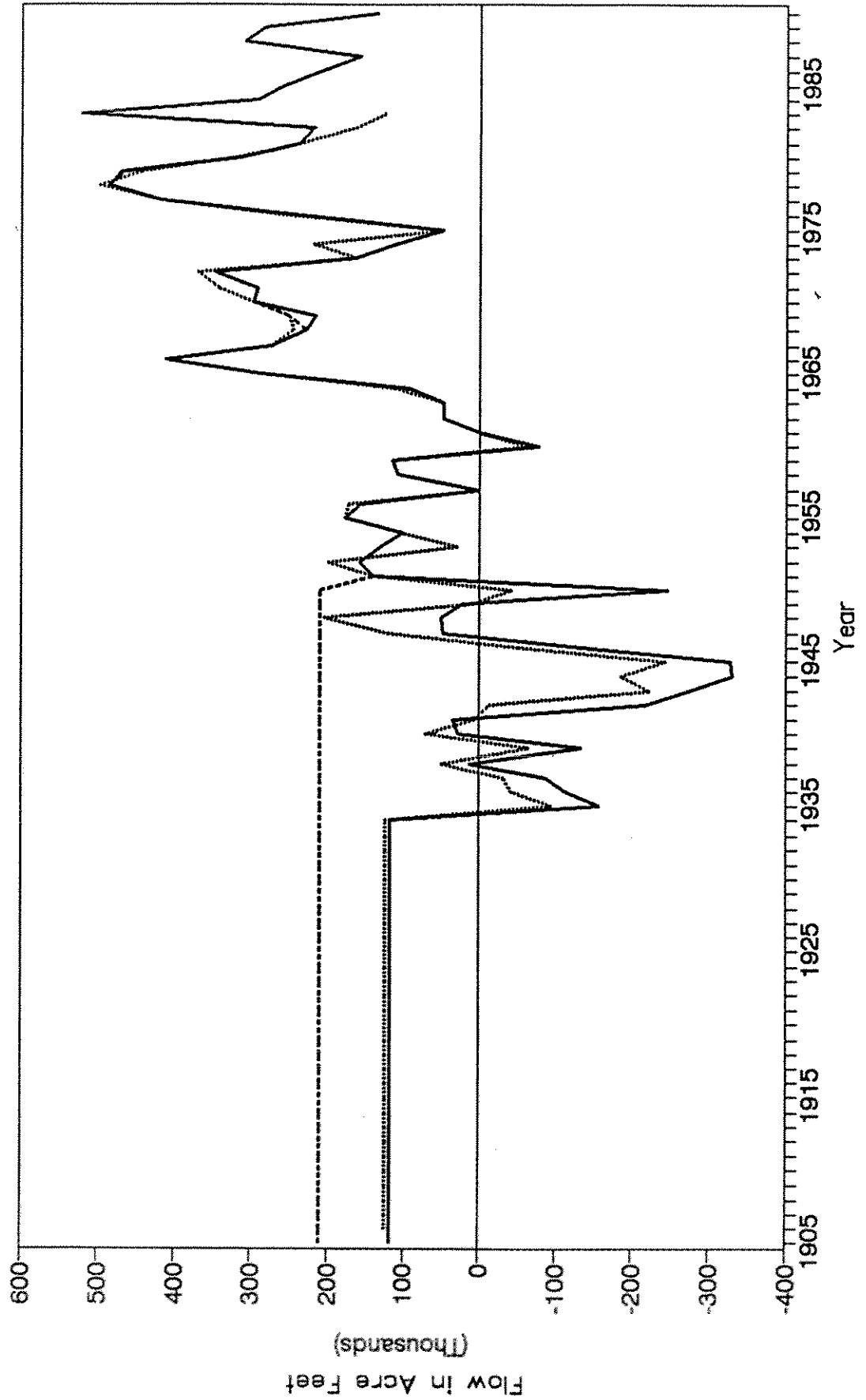
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Salt Load from Virgin River



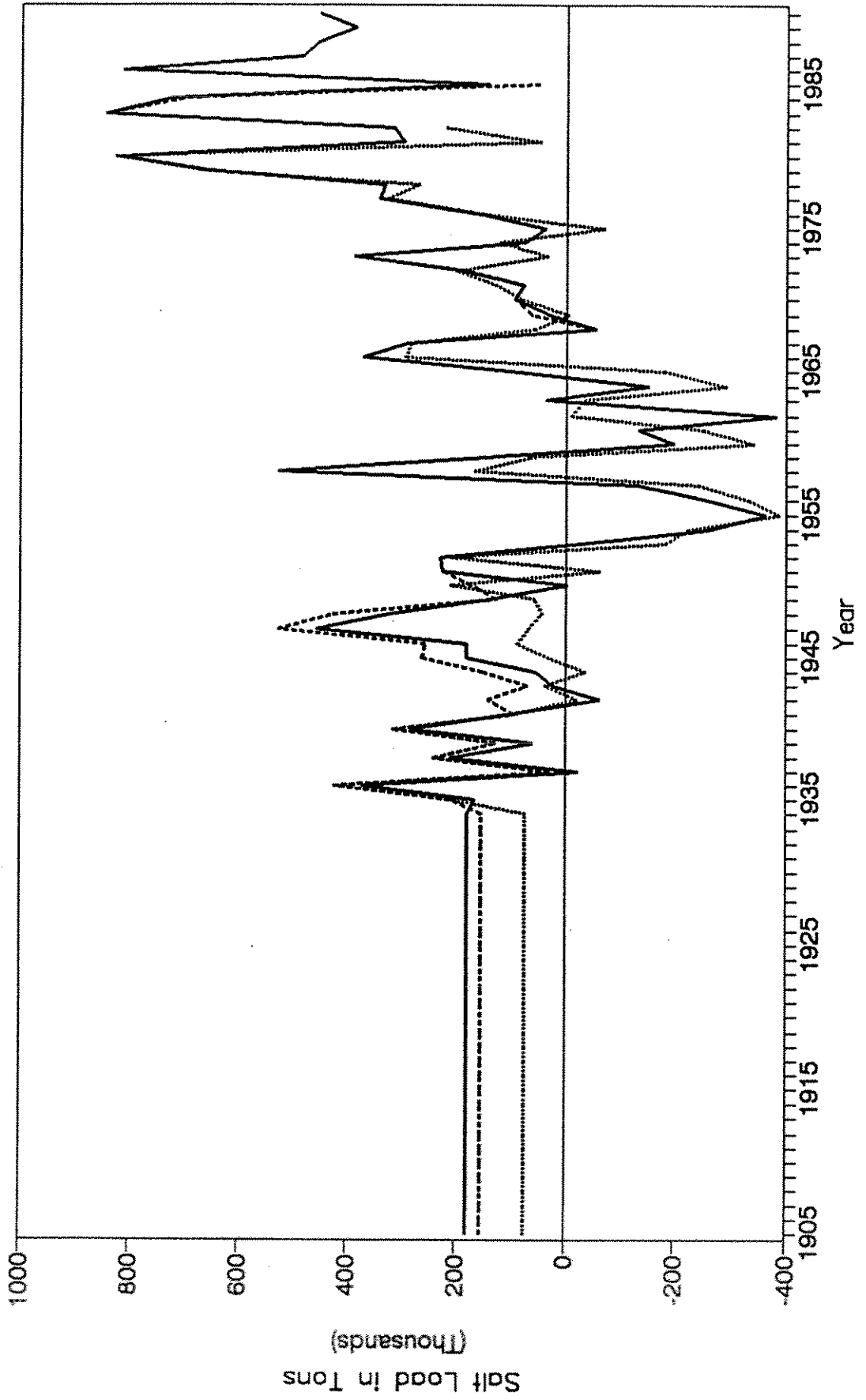
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Flow Gains - Hoover Dam to Davis Dam



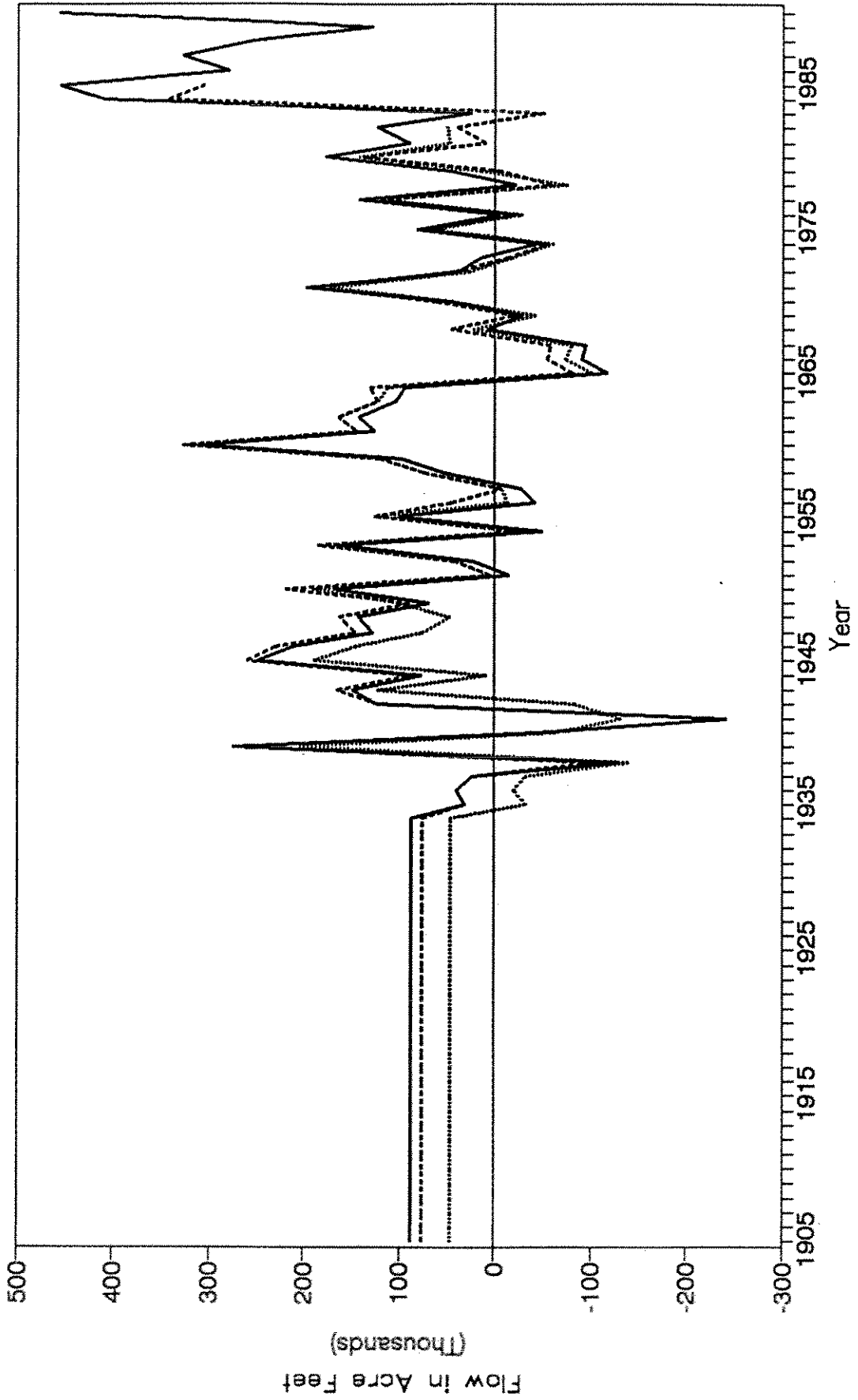
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Salt Gains - Hoover Dam to Davis Dam



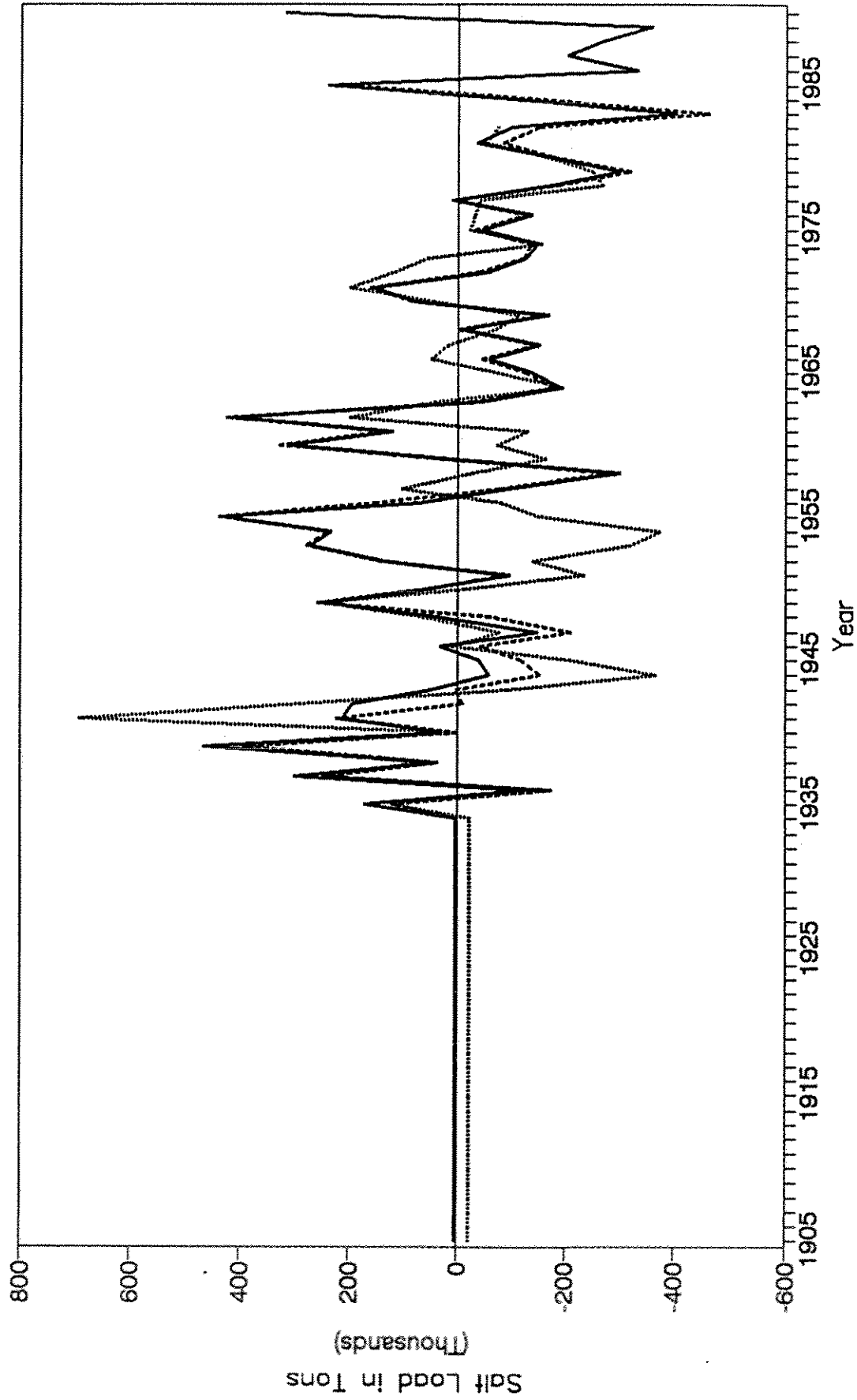
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Flow Gains - Davis Dam to Parker Dam



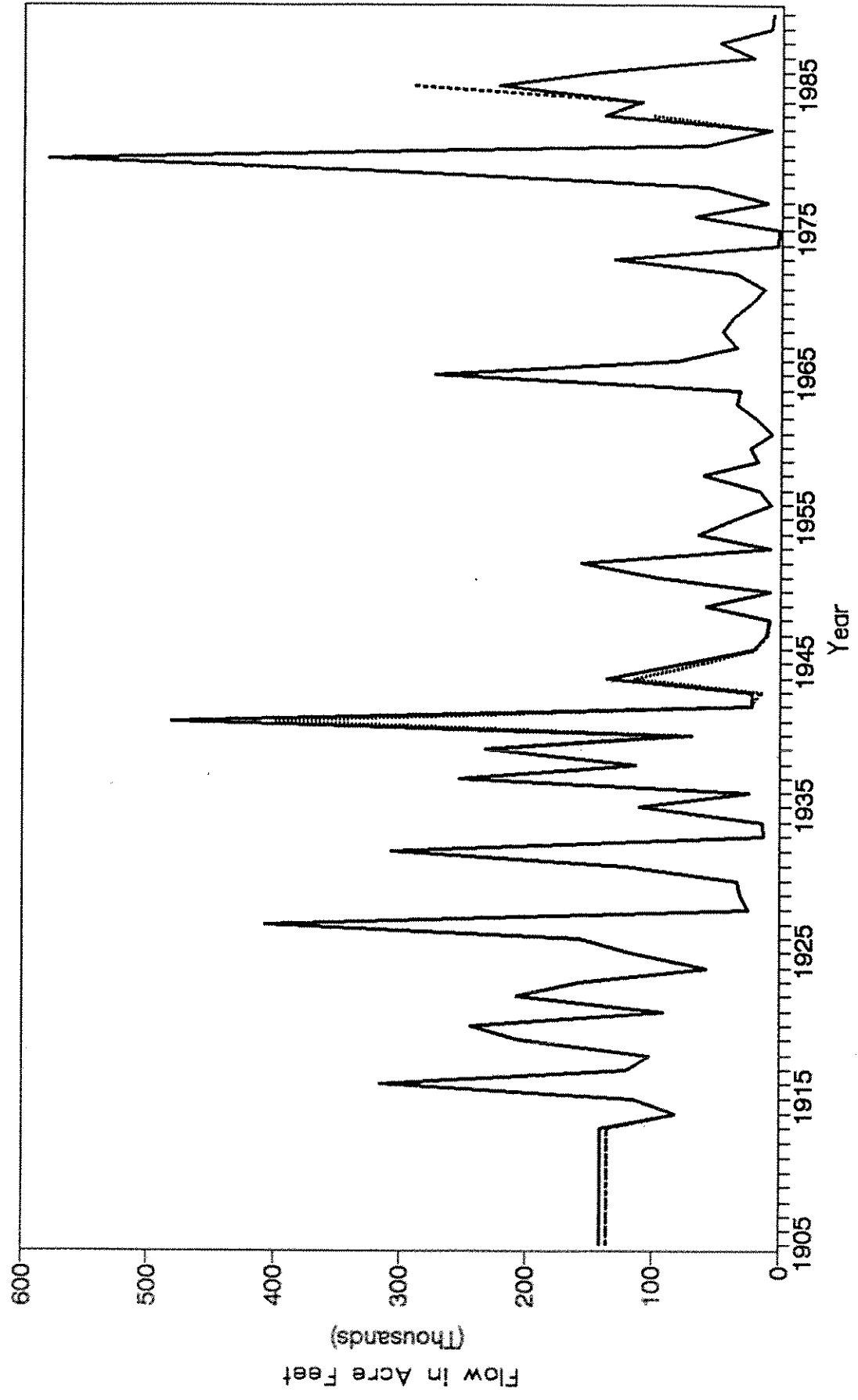
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Salt Gains - Davis Dam to Parker Dam



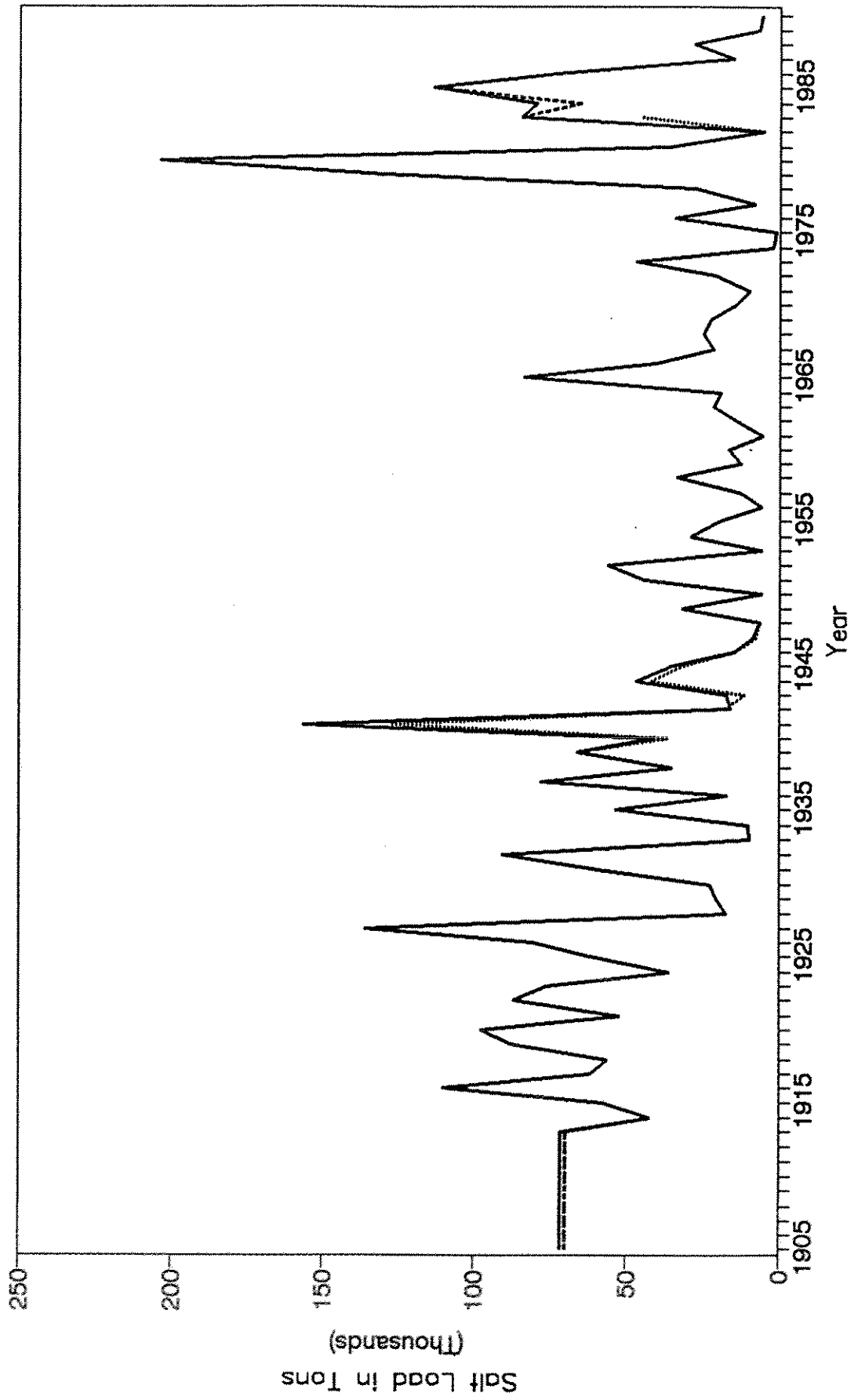
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Inflow from Bill Williams River



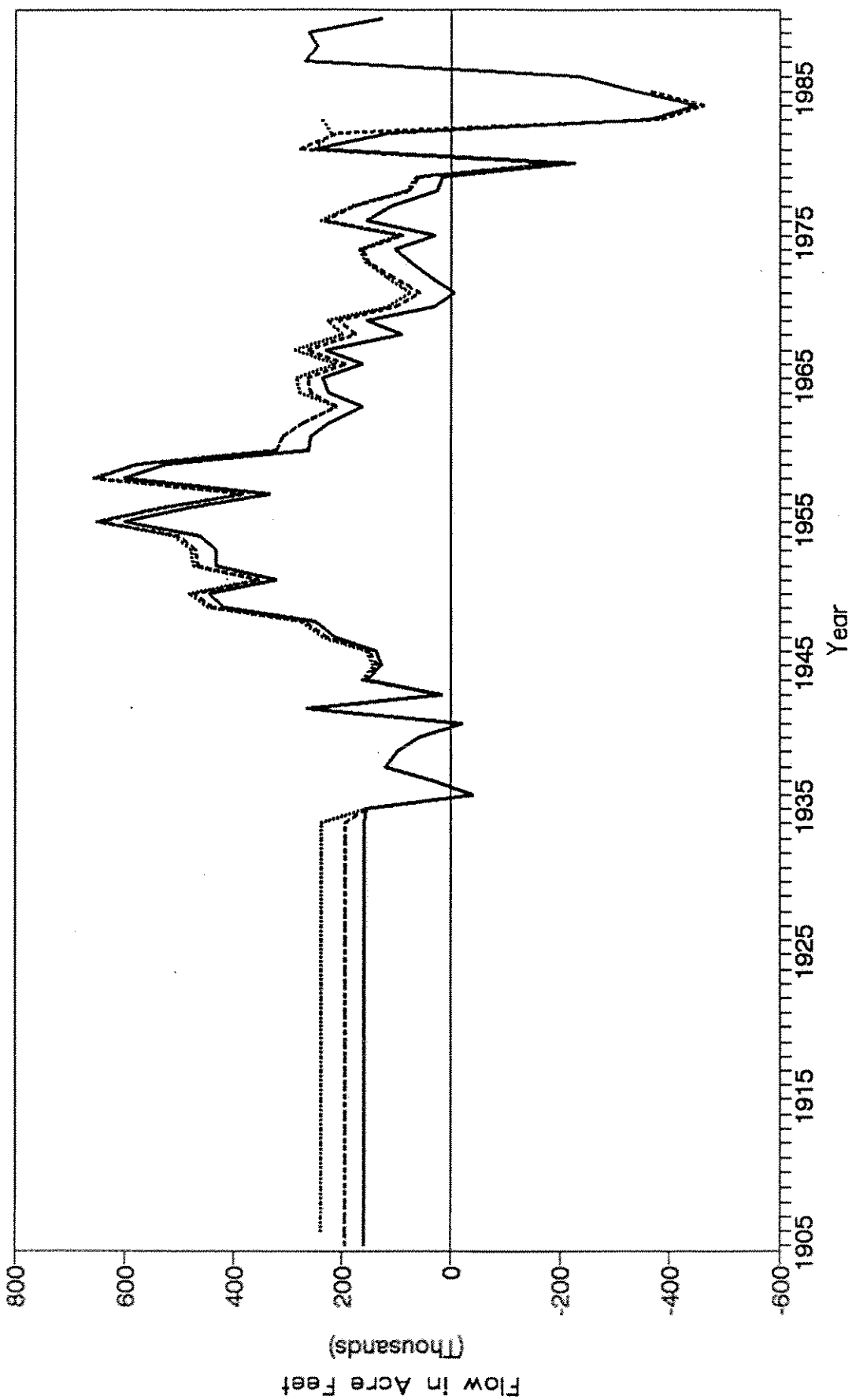
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Salt Load from Bill Williams River



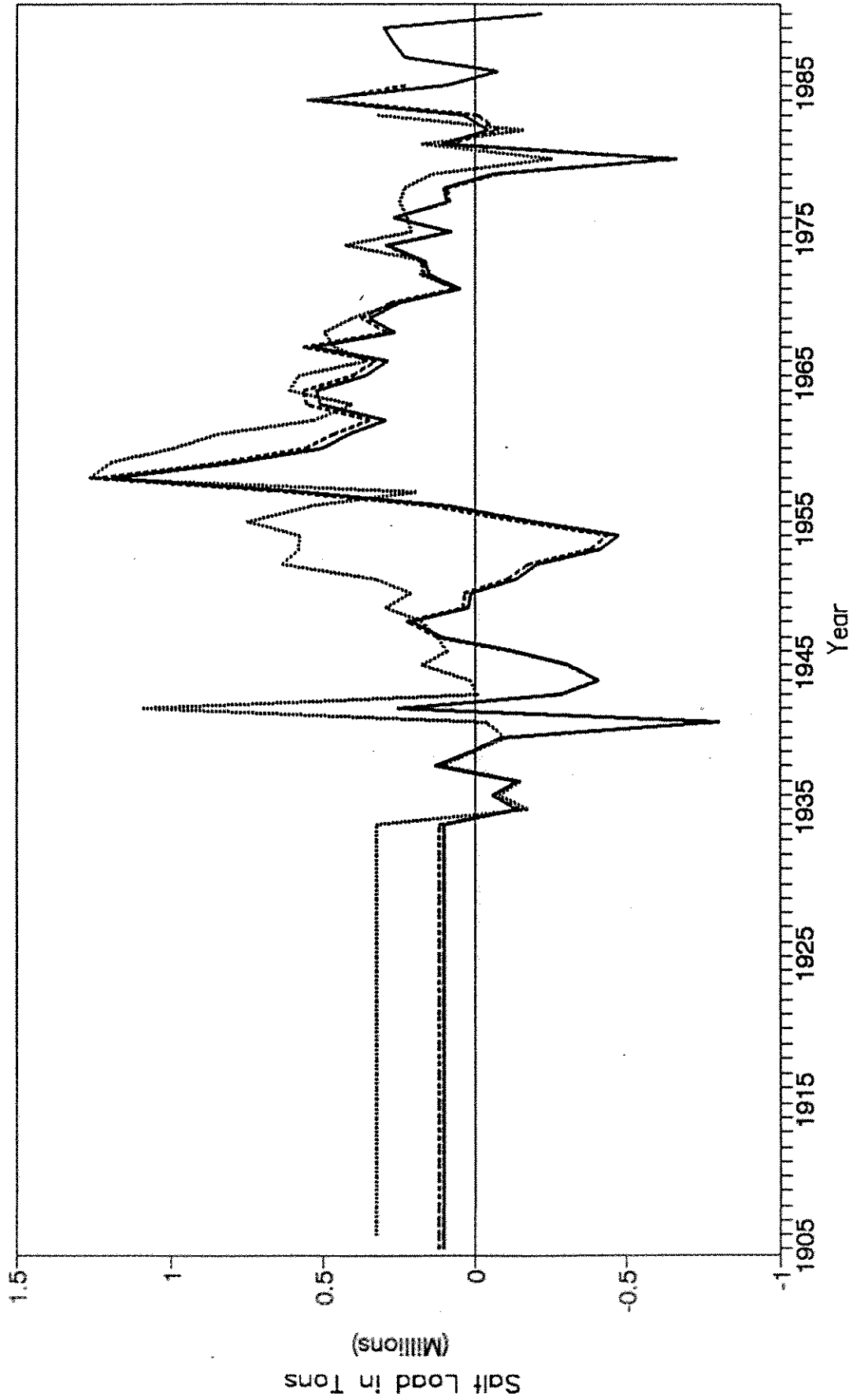
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Flow Gains - Parker Dam to Imperial Dam



..... 1983 Database 1986 Database — 1990 Database

Salt Gains - Parker Dam to Imperial Dam



..... 1983 Database 1986 Database — 1990 Database