PROGRESS REPORT

WATER BUDGET

for

UPPER KISSIMMEE CHAIN OF LAKES

by

Andrew Fan
Steve Lin

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Water Resources Division
Resource Planning Department
South Florida Water Management District
West Palm Beach, Florida
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I. INTRODUCTION

A limnetic and material budget study of the Kissimmee chain of lakes was initiated in 1981. The study area covers five major lakes in the Upper Kissimmee Basin (East Tohopekaliga, Tohopekaliga, Cypress, Hatchineha, and Kissimmee). The objectives of the study are to provide background water quality data, to quantify the nutrient loading effect, and to assess the trophic state of the lakes. Hydrologic data are needed to quantify the water quality effect. The responsibility of the Water Resources Division is to provide the necessary hydrologic support.

The purpose of this report is to present the progress of the study covering the period 1981 to 1983. The report focuses on the hydrologic procedures only, and water quality aspects will not be included. A final report covering both water quality and hydrology is scheduled to be published in 1985-1986.

The study has proceeded in two phases. In phase one, a hydrologic monitoring network was set up in the upper two lakes with data collection beginning in October 1981. In phase two, the monitoring network was expanded to cover the lower three lakes with data collection beginning in September 1982. Two years of data from the upper two lakes and one year of data from the lower three lakes are included in this report.

The report begins with a description of the hydrogeologic setting of the study area. A discussion of the design and monitoring procedure of the hydrologic gaging stations follows. The next major section covers the water budget computational methodology with a detailed explanation of the estimation procedure used for each hydrologic component. An analysis of the water budget results for the 1981-1983 period is then presented. The report concludes with an appraisal of the study and a forecast of its future direction.

II. DESCRIPTION OF STUDY AREA

The study area covers five major lakes in the upper Kissimmee basin. Lakes Tohopekaliga and East Tohopekaliga are referred to as the upper two lakes, and Lakes Cypress, Hatchineha and Kissimmee, the lower three lakes. The study area and its geographic relationship to the other lakes in the chain is shown in Figure 1.

Topographically, the relief adjacent to the upper two lakes is relatively mild. The relief adjacent to the lower three lakes is even less pronounced. Under wet and high stage conditions, the lower three lakes are connected by swamp and marshy areas making it difficult to define the lake boundaries accurately.

Urban areas are found mainly in the northern part of Lake Tohopekaliga and in the southern part of East LakeTohopekaliga. The remaining drainage areas of the lakes are predominantely agricultural areas, native and improved pasture, and wetlands.

Major tributary inflows include Boggy Creek and Shingle Creek of the upper two lakes; and Reedy, Marion, London, Catfish, and Rosalie-Tiger Creeks of the lower three lakes.

Reedy Creek divides into two branches upstream of Lake Cypress. One branch enters Lake Cypress and the other, known as Dead River, enters Lake Hatchineha. Based on stream flow measurement data, the majority of the flow enters Lake Hatchineha.

Lake Kissimmee is the largest lake in the chain with four smaller lakes (Rosalie, Tiger, Marian and Jackson)draining into it. With the exception of Lake Tiger, however, these smaller lakes contribute little flow to Lake Kissimmee because of the existence of man made earth plugs at their outlets.

Geologically, the Kissimmee chain of lakes cuts into the surficial aquifer which ranges in depth from 100 to 150 feet (Frazee, 1980). The lakes are very shallow. The mean depth under maximum regulation stage ranges from 10 feet in East LakeTohopekaliga to between 6 and 8 feet in the other four lakes (Table 1).

TABLE 1
LAKE SIZE COMPARISON

Lake	Maximum Regulation Stage (msl)	Lake Area* (acre)	Lake Volume* (ac-ft)	Mean* Depth (ft)
East Tohopekaliga	58.0	12,600	126,700	10
Tohopekaliga	55.0	21,400	146,900	7
Cypress	52.5	4,274	28,620	7
Hatchineha	52.5	9,733	55,350	6
Kissimmee	52.5	42,607	349,400	8

* At maximum regulation stage

A total of 24 piezometers (shallow observation wells) were installed in the study area in 1981 by the SFWMD. The soil samples taken from the piezometer borings indicate that the study area is covered with relatively homogeneous material of silty fine to medium sand. The sand is characteristically loose and cohesionless, locally known as "Sugar Sand". Based on grain size analyses and recovery tests, it is estimated that the soil is of low to moderate permeability.

III. HYDROLOGIC GAGING PROCEDURE

A preliminary water budget is scheduled to be available on a quarterly basis. This permits early detection and correction of problems. To complete the water budget, data are needed from more than 70 SFWMD stations, and from outside sources such as the USGS, Florida State Park Service, and the National Weather Service. This section covers the design, planning, and data collection procedures of the hydrologic monitoring network.

A. Rainfall and Evaporation

Eleven rainfall stations within the study area are available for this study. Initially, there was only one pan evaporation station (Kissimmee). The next nearest station was at Lake Alfred, approximately 25 miles west of the study area. Comparison of the data at Kissimmee and at Lake Alfred indicates that the two sets of data disagree considerably.

In November 1982, the SFWMD installed a standard, non-recording evaporation pan at S-65 so that comparisons could be made among all three stations. After a year of data collection from the S-65 station, it was concluded that data from the Kissimmee station are unrealistically low. Data from Lake Alfred and S-65 stations are in good agreement. Since Lake Alfred has a long term continuous record, it was selected for use in this study.

B. Stage and Stream Flow Stations

Selection of the stream flow gaging stations was based on the criteria of (1) hydrologic significance, (2) water quality impact, and (3) practicality of quantifying the flow. The selection process began with a number of helicopter trips and field investigations to identify the drainage patterns and sub-basin drainage boundaries (Figure 2). Site conditions were evaluated to determine the

best approach to quantify the flow. Considerable time and judgment were expended to finalize the design since many areas were difficult to access and the drainage patterns were poorly defined.

Temporary weir structures were installed in several tributary sites in the Lake Tohopekaliga and East LakeTohopekaliga areas since site conditions permit simple construction. Several tributaries, although hydrologically more significant than others, are not gaged due to backwater effect or unconfined flow conditions. Unless substantial structural change is implemented, the flow is not quantifiable on the basis of stage data alone. Stream flow measurements are taken periodically on some of these sites, while for others, crude velocity measurements are taken on monthly water quality sampling trips. Flow data are estimated, as much as possible, by correlating the instantaneous measurements with continuous flow records in nearby, hydrologically similar sites.

Pumpage volume at several private pump stations are estimated from records of pumpage time obtained by USGS timers. Unfortunately, these timers malfunctioned frequently, leading to loss of some records.

The tributaries selected for gaging in the lower three lakes require flow measurements to establish the rating curves. Many sites require access by boat or long access time to the sites. Frequently the measurements must be taken on short notice and under adverse weather conditions. In 1983, a contract was awarded to Hydrogage, Inc. to take the measurements.

Figure 3 shows the location of all the hydrologic gaging stations. Table 2 summarizes the stream flow gaging stations and the methods used to calculate flow.

TABLE 2. STREAM FLOW GAGING STATIONS

STATION	METHOD	REMARKS
Jim Branch Creek	Weir flow	Discontinued in January, 1983 due to storm distruction of weir. Flow continued to be computed by correlation method.
Dakota Ditch	Float measurement	Culvert flow.
Mill Slough Creek	Weir flow	
East City Ditch	Weir flow	Existing sheet pile weir
West City Ditch	Weir flow	
Partin Canal	Weir flow	Existing concrete weir.
Judges Dairy	USGS timer	Pump station. Recording meter also available to check reading.
Partin Pump	USGS timer	Pump station
Pleasant Hill	Float measurement	Discontinued after first year
Overstreet Ditch	Float measurement	Discontinued after first year.
Johnson Ditch	Float measurement	Discontinued after first year.
Partin North Canal	Float measurement	
Partin South Canal	Float measurement	Discontinued after first year.
Reedy Creek	Flow rating	Located at SR 531. Split into Dead river and Reedy Creek near Cypress.
Dead River	Flow rating	Correlation method based on flow measurement to determine the split from Reedy Creek at SR 531.
Marion Creek	Flow rating	Overbank flow at high stage
London Creek	Flow rating	Recorder not installed due to backwater effect. Correlation method used to estimate flow.
Rosalie-Tiger creek	Flow rating	Water slope method using Lake Rosalie and Tiger Lake stages. Overbank flow at high stage.
C-36 canal	Flow rating	Water slope method using Lake Cypress and Lake Hatchineha stages.
C-37 cannal	Flow rating	Water slope method using Lake Hatchineha and Lake Kissimmee stages.
Machata Pump	USGS timer	Pump station
Zipperer Canal	Weir flow	Existing flashboard weir.

C. Groundwater Gaging Stations

A total of 24 piezometers (shallow observation wells) were installed in the five lake areas during 1981. The piezometers were located in such a way that the average slope of the groundwater table could be estimated. The dual groundwater and rainfall recorder data were also used. The dual recorders were installed in the 1970's, but the groundwater data had never been used or processed. A special request was needed to activate the processing of data.

During the piezometer installation, soil samples were collected and inspected. Descriptions of the soil samples are included in Appendix 2. In situ recovery tests of the piezometers and laboratory grain size analyses of the samples were performed to estimate the permeability.

Piezometer readings are taken at monthly intervals during hydrologic data collection trips. Since groundwater stage does not vary considerably, the monthly readings are assumed to be the monthly averages. The locations of the groundwater stations are shown in Figure 4.

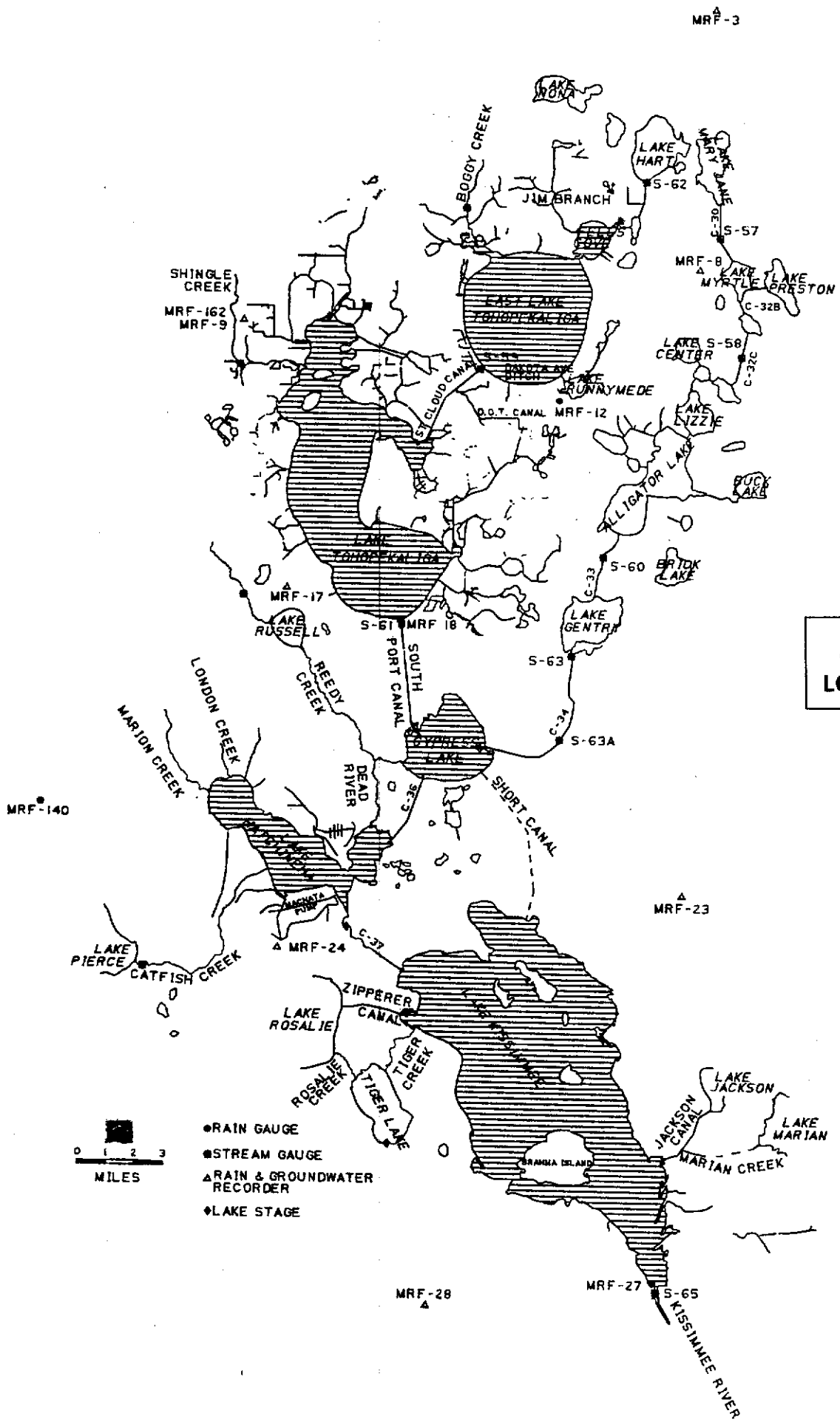


FIGURE 1
STUDY AREA
LOCATION MAP

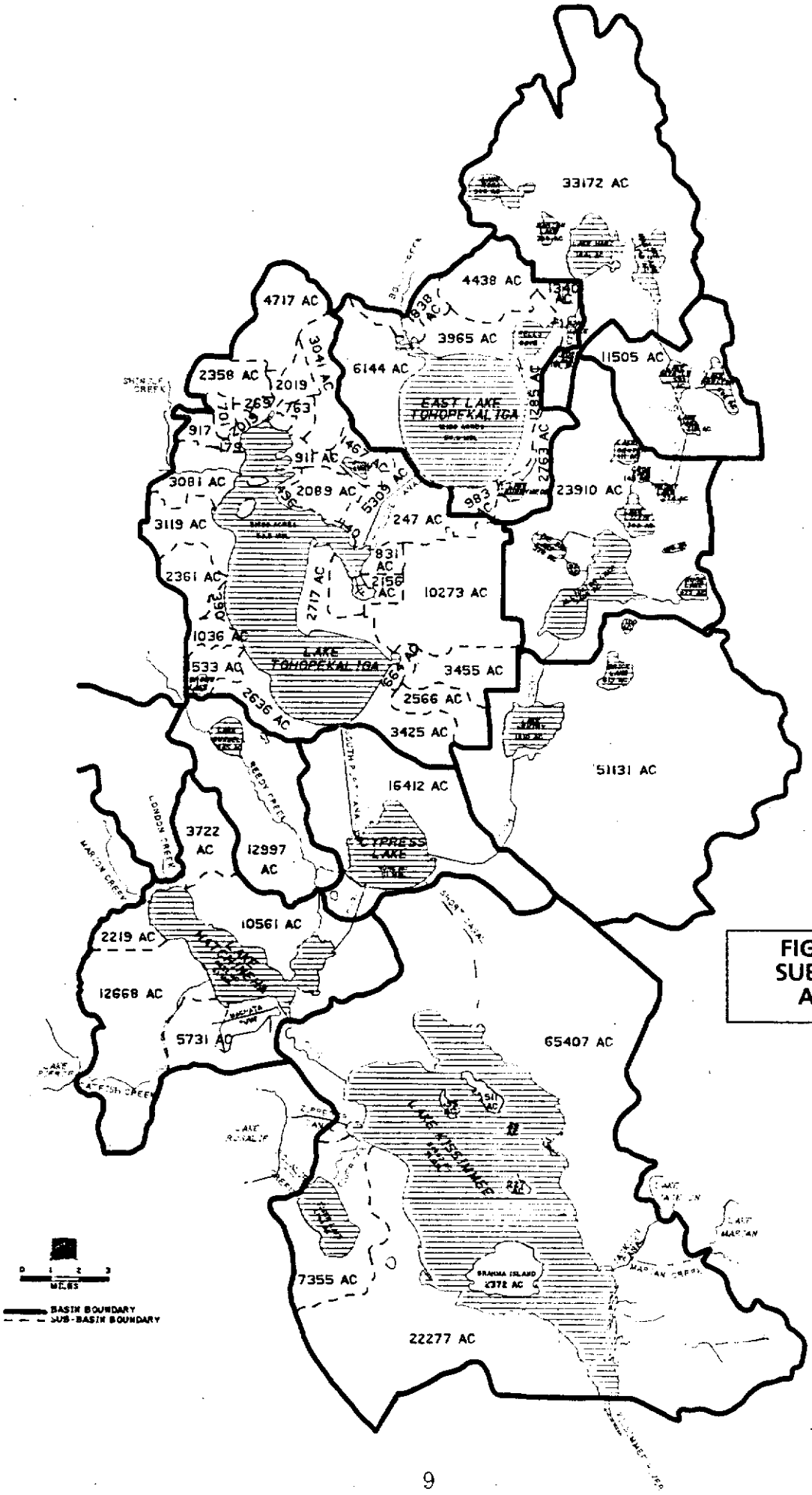


FIGURE 2
SUB-BASIN AREAS

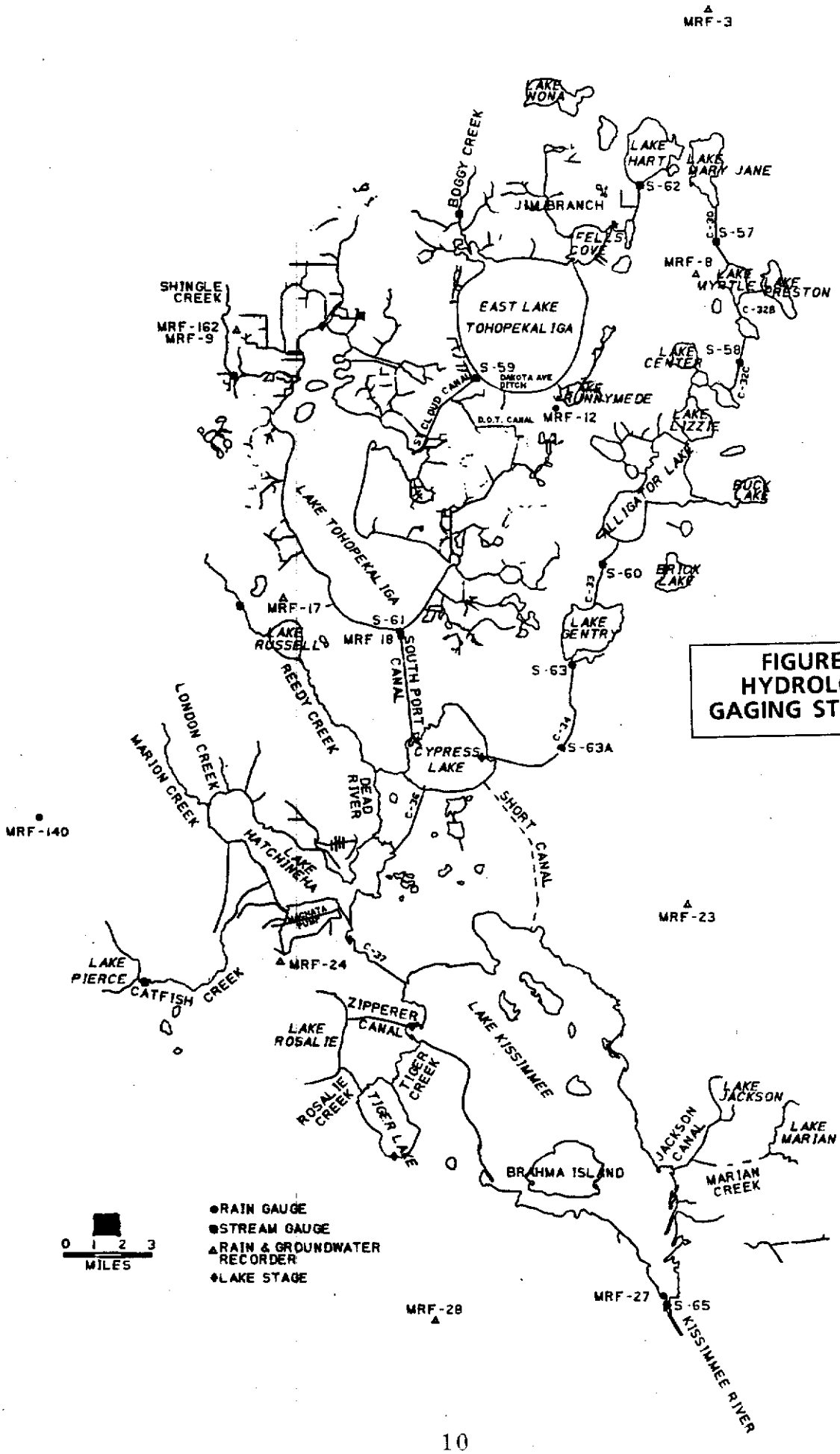


FIGURE 3
HYDROLOGIC GAGING STATIONS

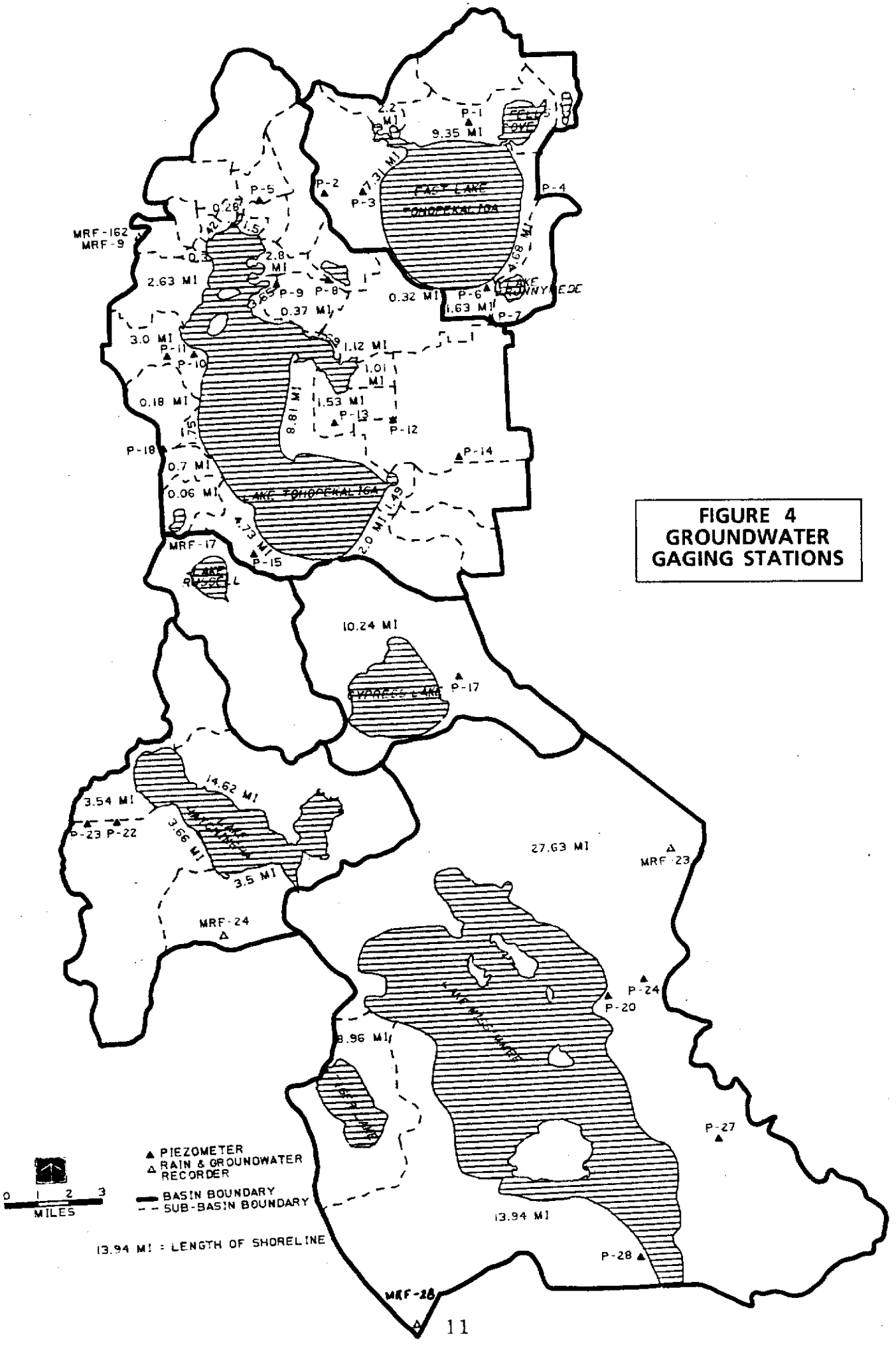


FIGURE 4
GROUNDWATER
GAGING STATIONS
EAST LAKE TOHOPEKALIGA
LAKE TOHOPEKALIGA
LAKE RUSSELL
CYPRESS LAKE
LAKE WILLIAMS
LAKE MILLS MARRE
LAKE RUNNYMEDE
FELLS COVE
P-1
P-2
P-3
P-4
P-5
P-6
P-7
P-8
P-9
P-10
P-11
P-12
P-13
P-14
P-15
P-17
P-18
P-20
P-22
P-23
P-24
P-27
P-28
MRF-162
MRF-9
MRF-17
MRF-23
MRF-24
MRF-28
2.2 MI
9.35 MI
7.31 MI
4.68 MI
0.28
1.5
2.8 MI
2.63 MI
0.37 MI
0.32 MI
1.63 MI
3.0 MI
1.12 MI
1.01 MI
0.18 MI
1.53 MI
8.81 MI
0.7 MI
0.06 MI
4.73 MI
2.0 MI
1.49
10.24 MI
14.62 MI
3.54 MI
3.66 MI
3.5 MI
27.63 MI
8.96 MI
13.94 MI
PIEZOMETER
RAIN & GROUNDWATER RECORDER
BASIN BOUNDARY
SUB-BASIN BOUNDARY
0 1 2 3
MILES
13.94 MI = LENGTH OF SHORELINE

IV. WATER BUDGET COMPUTATION PROCEDURE

Water budget computation is simply a mass balance operation of essentially adding and subtracting hydrologic components. However, the magnitude of the hydrologic components can vary considerably depending on the assumption and estimation method selected. Considerable judgment is also needed to detect data mistakes so that the error of the water budget can be minimized. This section covers in detail the estimation methodology of each hydrologic component.

A. Rainfall and Evaporation

A total of eleven rainfall stations are available within the study area. Since the rainfall stations are not uniformly distributed, a weighted arithmetic averaging method is used to calculate the net lake precipitation. The rainfall stations are shown in Figure 3 and a table listing the rainfall stations used for each lake and their weighting factor is included in Appendix 1.

Initially, the Kissimmee pan evaporation station was the only evaporation station available within the study area. Lake Alfred station, approximately 25 miles west of Lake Hatchineha, was the next nearest evaporation station. The data from the Kissimmee station were found to be consistently lower than those from the Lake Alfred station. To resolve this large descrepancy, a standard, non-recording evaporation pan station was installed at S-65 in late 1982 so that data from all three stations can be compared. A total of 15 months of data are available for the S-65 station. The data from all three stations are plotted in Figure 5.

The comparison clearly indicates that the data from Lake Alfred and S-65 stations are in good agreement, whereas those from Kissimmee are consistently 10% to 30% lower. It was concluded that data from the Kissimmee station were non-representative and were not used any further. Given Lake Alfred station's long term, continuous record, it was selected for use in this study. The underestimation at the Kissimmee station can be attributed to two factors: First, partial shading early in the morning from a tree and from a building (erected in 1983) affected the reading. Second, the Kissimmee evaporation station is an automatic recording station. Automatic recording raingage and pan evaporation stations have a tendency to underestimate true values due to mechanical resistance in the recording device. This has been recognized in other recording stations but has seldom been addressed. Relocation of the Kissimmee evaporation pan, and changing it to a standard non-recording one was subsequently ordered.

A key factor in converting the pan evaporation data to lake evaporation is to select an appropriate pan coefficient. Based on the National Weather Service study (Kohler, et al), the coefficient of a standard class A pan for open water evaporation in the continental United States ranges from 0.70 to 0.75 in the interior and climbs from 0.75 to 0.81 in the more humid areas near the shores of the Great Lakes and the seacoasts. Based on Stephens' studies (USDA), an average coefficient of 0.81 is applicable to Florida lakes. Considering the high transpiration rate in a lake's marshy litoral zone, the Jacksonville District Army Corps of Engineers used relatively high coefficients of 0.87 for Lake Okeechobee and 1.00 for the Water Conservation Areas. There is still much debate on what pan coefficient should be used in Florida lakes.

At the beginning of the study period, central and southern Florida was experiencing the 1980-1981 drought, which has been estimated to be greater

than one in one-hundred years. This provided an ideal condition to calibrate the pan coefficient by using the water budget method on well gaged lakes. East Lake Tohopekaliga was selected. East Lake Tohopekaliga is a circular lake with a well defined boundary, and good stage-storage rating data, based on one-foot contour maps, are available. Major inflows and outflows (Boggy Creek, S-59, S-62, and Jim Branch Creek) are gaged by USGS and SFWMD. Seepage can be estimated from six piezometers installed around the lake for this study. The only unknown inflows to the lake are overland flow during storm events and a small amount of ungaged local tributary inflows.

The period October 1981 to April 1982 was chosen for calibration. During this period, there was no structure inflow or outflow. Major inflows from Boggy Creek and Jim Branch Creek were far below normal. The lack of rainfall greatly reduced the amount of overland flow and ungaged local tributary inflows. Because of the small amount of inflow and outflow, water budget error can be minimized. Evaporation represented the only major component, and can be ideally estimated as the residual term of the water budget.

The lake evaporation was calculated as the residual term of the lake water budget for the period October 1981 to April 1982. The calculated lake evaporation was plotted against the pan evaporation from Lake Alfred station. A straight line passing through the origin was fitted to the data, yielding a slope of 0.76. It was felt that the true coefficient should be slightly higher due to the inclusion of a small but unquantifiable amount of overland flow and ungaged local tributary inflows in the residual term. Accordingly, the value 0.76 was rounded to 0.8 (Figure 6), which was selected to be the pan coefficient to be used in the present study . (If pan data at Kissimmee were used, a coefficient of 1.00 is applicable since the pan data there is approximately 20% below those from the Lake Alfred or S-65 stations).

Another important factor in estimating lake precipitation and evaporation is the selection of the appropriate pool area upon which to calculate the total flux. Traditionally, both variable pool area as a function of stage and constant pool area have been used. The constant pool area approach, using the area corresponding to the maximum regulation stage, was selected for this investigation (Table 1). At maximum regulation stage, the boundary of the pool defines approximately the lower edge of the floodplain. A break in slope generally occurs at this boundary. Because of the greater slope, precipitation that falls between this boundary and the pool enters the lake quickly as overland flow. Furthermore, this area is characterized by heavy marsh growth so that evapotranspiration is as great as, if not greater than, the open water evaporation. Some sensitivity analyses have been performed on both pool area approaches and the results indicate that the constant pool approach is more reasonable.

FIGURE 5. COMPARISON OF PAN EVAPORATION

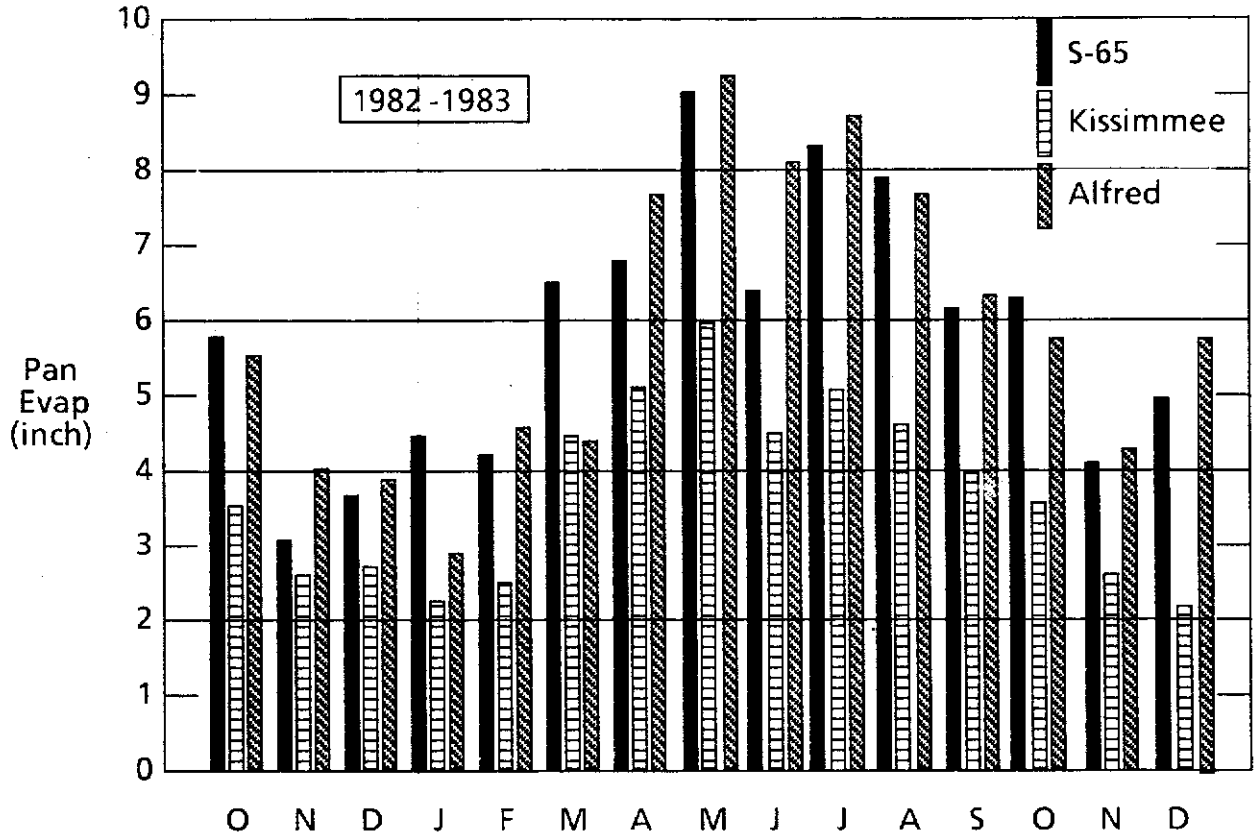
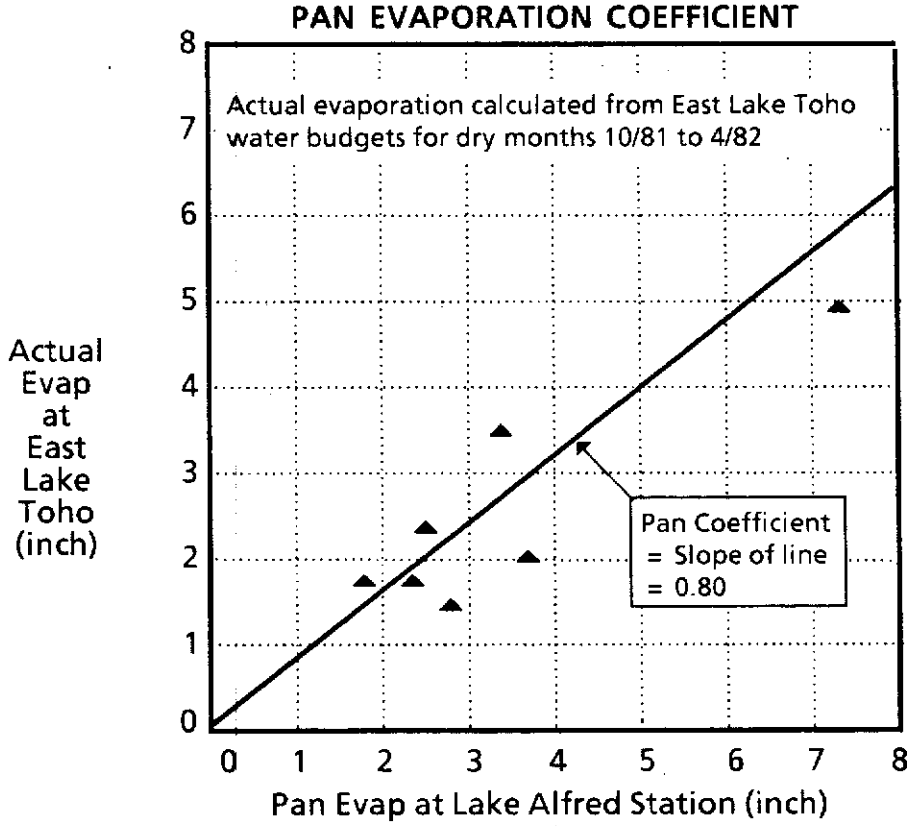


FIGURE 6
PAN EVAPORATION COEFFICIENT



B. Surface Water Inflow

In addition to stations routinely managed by the USGS and the SFWMD, a total of twelve recording and nine non-recording stream flow stations were established for this study.

The non-recording stations include pump stations, where timers were installed to estimate the total monthly pumpage, and float measurement sites where instantaneous velocities are taken by crude float measurement methods on monthly trips.

The total pumping hours of the pumping stations are obtained from the USGS electromagnetic timers. These are used to calculate the total pumpage by knowing the pump capacity and assuming a 70% pump efficiency. Unfortunately, the timers malfunctioned many times, leading to loss of some records.

The discharge estimates from instantaneous float measurements are assumed to be the monthly averages, except when judgment indicates that the estimates are unrealistically too high or too low to be representative of the monthly averages.

Errors from the non-recording stations do not affect the water budget computations significantly since they represent only a small percentage of the total inflow. In fact, half of the float measurement stations were discontinued after the first year because of their insignificant impacts.

Inflows from recording stations in the upper lakes (Jim Branch Creek, Mill Slough, Partin Canal, West City Ditch, and East City Ditch) are computed by a simple weir formula. Weir crests have been designed to be high enough to allow free flow to occur most of the time. This eliminated the need for tailwater recorders and avoided the difficulty in obtaining time synchronous headwater and tailwater stage data.

While flow rating in the upper two lake areas is relatively simple, flow rating in the lower three lakes is more complex. All sites in the lower three lake areas require stream flow measurement to establish rating curves (Marion Creek, Reedy Creek, Dead River, C-36, C-37, and Rosalie-Tiger Creek). Hydrogage, Inc. was awarded a contract in 1983 to make these measurements. Preliminary rating curves are available to compute the flow and are included in Appendices 6 to 11. These rating curves are being continuously updated as additional flow measurement data become available.

At certain sites, such as Rosalie-Tiger Creek, C-36, and C-37, the slope of the water surface profile is used to calculate the flow. The upstream and downstream lake stages are used to define the slope. Flow rating at certain sites becomes impossible when the stage exceeds certain levels and overflowing from the channel to the marshy area begins (for example: Rosalie-Tiger Creek and Marion Creek). Under such situations, only the portion of flow in the channel can be estimated.

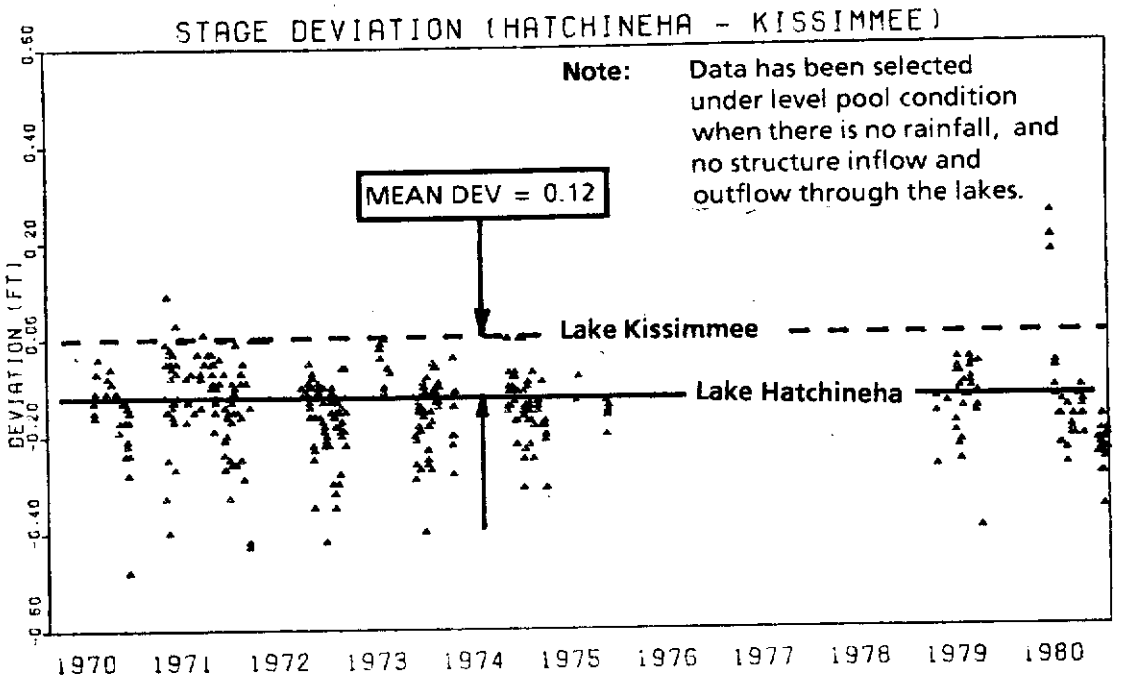
The most challenging task is to establish flow rating equations for C-36 and C-37. The discharges through C-36 and C-37 have great impacts on the water budget of the lower three lakes because of their large conveyance capacities. Theoretically, the discharge at C-36 or C-37 can be defined accurately with the knowledge of upper lake and lower lake stages, the dimensions, and roughness of the canal. In practice, accurate canal rating is hindered by the inability to obtain reliable and representative stage data for these calculations: (1) vertical datum errors exist between lake stage recorders, and (2) lake stage recorders , being located miles from the canal inlet or outlet, do not always represent stages at canal inlet or outlet. This is particularly affected by differential wind set-up of the lake surface and large structural discharges. Despite all the above problems, attempts were made to rate C-36 and C-37.

To correct the vertical datum errors, the SFWMD survey crew was requested to perform a datum correction leveling survey. First order accuracy (less than one-hundredth foot error) is needed to correct the datum errors . The survey results, however, did not achieve the required accuracy due to inaccuracy in some existing benchmarks and the difficulty of the task which requires a leveling run of more than 60 miles. As an alternative, a hydrologic approach was used to correct the datum.

The stage data at the lower three lakes, when level pool conditions existed, were selected for analysis. Level pool conditions are assumed to occur when there is no rainfall, structure inflow or outflow through the lower three lake system. The stage differences between Lakes Cypress and Kissimmee, and between Lakes Hatchineha and Kissimmee under such conditions are plotted in Figure 7. The mean deviations indicate that the datum of Lake Hatchineha is 0.12 ft. too low, and that of Lake Cypress is 0.07 ft. too high. These values were selected for datum adjustment. Based on corrected stages, the rating curves for C-36 and C-37 were established.

The datum adjustments so obtained do not totally eliminate the stage error problem. This is evidenced from the scattering of data above and below the mean deviation line (Figure 7). The scatter can be explained by factors such as wind set-up and sloping pool effects . To assure the C-36 and C-37 discharge computations to be as reasonable as possible, additional constraints were formulated. First, if the stage in the lower lake is higher than the upper lake (after datum adjustment), the flow is equated to zero. Although reverse flow is certainly possible, it is our judgment that the reverse stage condition is more likely caused by stage errors due to wind set-up and sloping pool effects. Second, the total 24-hour discharge calculated is compared with the change in storage, and the smaller is selected. The change in storage is defined here as the

amount represented by stage differences plus the upstream inflows. Third, we take advantage of the flow relationship between C-36 and C-37 discharges, since most of the flow measurements were taken on the same day. Figure 8 depicts the correlation relationship between concurrent (same day) discharges at C-36 and C-37. A criterion is set in the water budget computation so that if the discharge difference at C-36 and C-37 is unreasonably large, the total discharge is redistributed to satisfy the correlation relationship. Based on stream flow measurement data, a difference of more than 1000 cfs is considered unrealistic, and was selected as an indicator for when flow redistribution is needed.



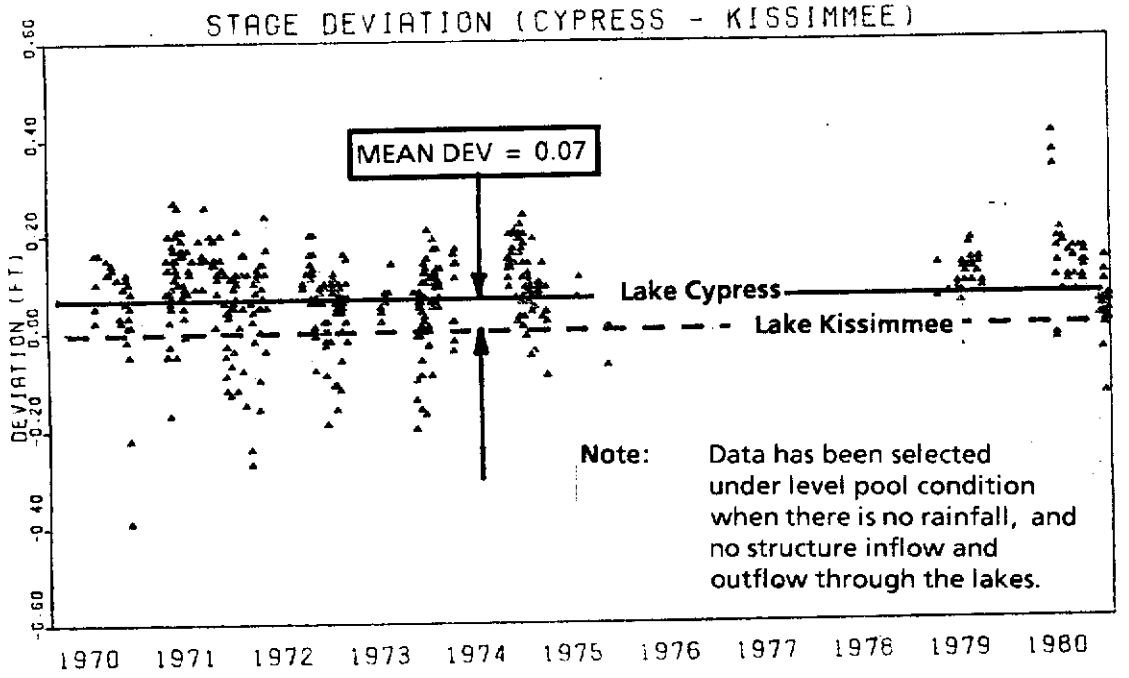
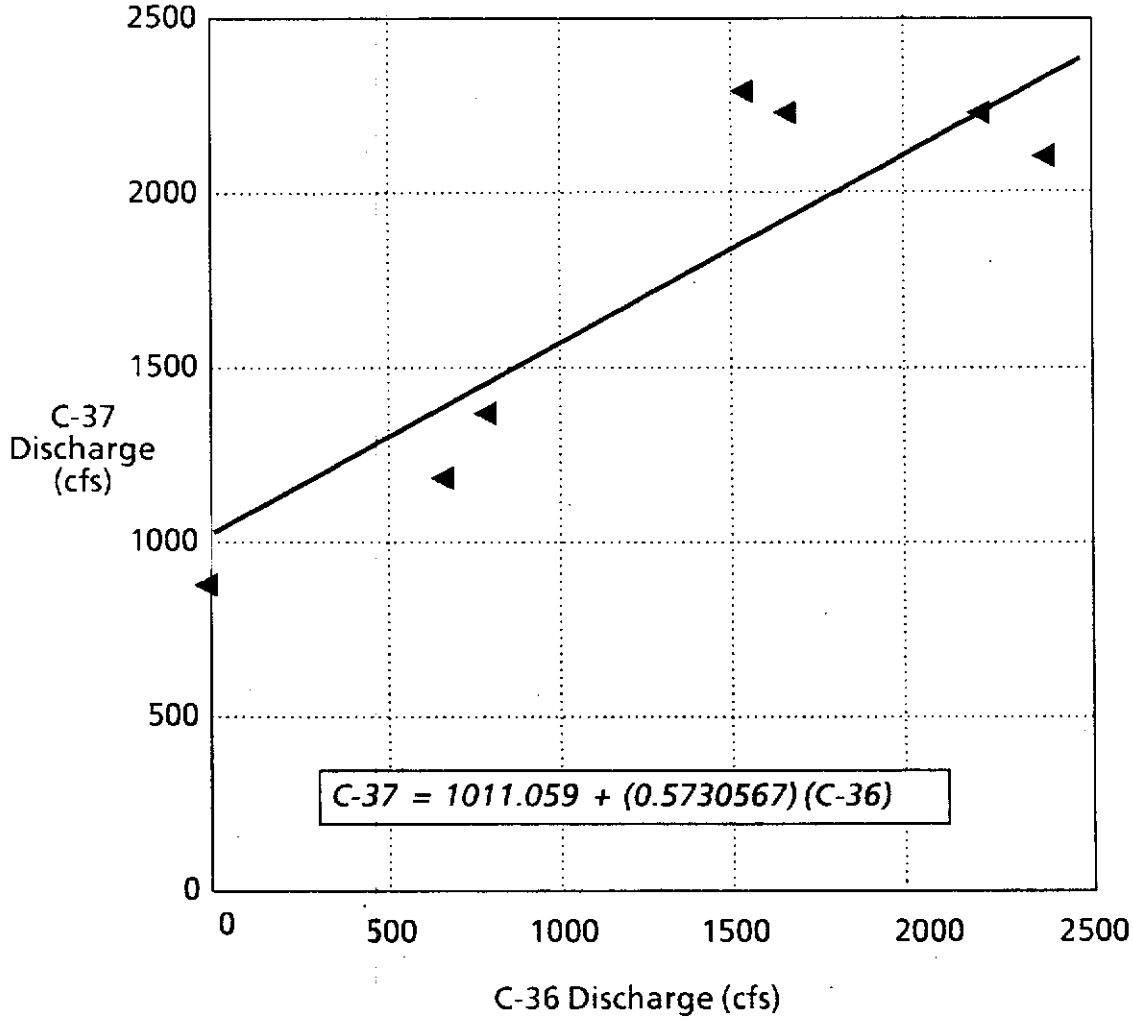


FIGURE 7. DATUM CORRECTION

FIGURE 8
CORRELATION BETWEEN C-36 AND C-37



C. Groundwater Inflow

Darcy's equation is used to estimate groundwater inflows to the lakes. The application of Darcy's equation requires knowledge of the water table slope, the permeability, the thickness of the aquifer, and the depth of lake penetration

into the aquifer. The method is outlined in Table 3 and the estimation of the parameters is discussed below.

TABLE 3. SEEPAGE COMPUTATION BY DARCY'S EQUATION

$$Q = CTiL$$

where
- Q = seepage (cfs)
- C = Partial penetration coefficient ($0 < C < 1$)
- T = Transmissivity (ft^2 / s)
  = Permeability times thickness of aquifer
- i = Gradient of water table (ft / ft)
- L = Length of shoreline where i is applicable (ft)

There is little published data of the surficial aquifer in the study area. Hydrogeologic interest in the area has centered mainly on the deep Floridan Aquifer. There was also a lack of existing shallow observation wells in the study area to define the water table slope. For these reasons, a total of 24 piezometers (shallow observation wells) were installed in 1981 in the five lake areas. The stage readings from the piezometers are used to estimate the water table slope, and the piezometer soil samples were analysed to determine the aquifer parameters. A typical piezometer is approximately 15 feet deep with the lower five feet screened.

Soil samples were collected and identified during drilling, and well logs were produced (Appendix 2). The aquifer material is essentially homogeneous throughout the maximum depth of drilling (25 feet) and throughout the study area. The only variation is that the material becomes gradually finer from north to south. The material can be described as silty fine to medium sand. The material is characteristically cohesionless. In many locations the material sloughed back into the hole when the drilling rod was withdrawn.

Recovery tests, using a hand pump, were performed on each of the piezometers. The procedure requires pumping the water out of the pipe quickly

and timing the recovery of the water level. The test results are plotted in Figure 9. Unfortunately, the test results cannot be used to determine the permeability based on standard methods described by the U. S. Bureau of Reclamation, or from Bouwer and others, as our piezometer design is different from the design used in the standard testing. The use of a screen in our case creates an unknown screen factor which influences the test results (Open pipe is used in standard methods). Nevertheless, the test results indicate that the variation of the permeability is very small throughout the area, as depicted by the essentially parallel recovery time plot in Figure 9.

As an alternative, permeability was estimated by the grain size analysis method. Grain size distribution analyses of soil samples were performed in the SFWMD water chemistry laboratory. Because of the homogeneity of the aquifer material, it is sufficient to analyze only five representative samples. The results were used to estimate the permeability by methods described by Terzaghi and the Water Well Journal. Both methods are based on the correlation relationship between permeability and grain size distribution. The permeability is estimated to be between 10 to 30 feet per day, which is considered low to moderately permeable. Detailed calculations can be found in Appendix 3. The highest value of 30 feet per day is used for East Lake Tohopekaliga, and the lowest value of 10 feet per day, for Lake Kissimmee, based on the fact that the soil becomes increasingly finer in the lower lakes.

A factor needed to calculate seepage into a lake is to determine the partial penetration effect. A straight application of Darcy's equation is not acceptable because it assumes the lake penetrates the full depth of the aquifer. The lakes in the Kissimmee Basin typically penetrate approximately 10% of the aquifer. To include the partial penetration effect, a simplified coefficient method is used.

The true partial penetration seepage based on the two-dimensional flow net method was calculated for a typical lake-aquifer cross-section. The full penetration seepage based on Darcy's equation (TiL) was also computed. The ratio of the seepage computed by the flow net method and by the TiL method is the partial penetration coefficient (C). An example of the computational method is shown in Figure 10. Based on the above analysis, an average coefficient of 0.4 is used for all the lakes.

The slope of the water table is calculated from the head difference between the piezometer and the lake. Assuming that the groundwater sub-basin is the same as the surface water sub-basin, the calculated gradient is assumed to be the average gradient of the sub-basin where the piezometers are located. Because of the limitation of manpower, piezometer readings are taken once a month. Since the groundwater stage does not vary considerably, the monthly reading is assumed to be the monthly average.

With the above simplifying assumptions, seepage is calculated in monthly time steps for each sub-basin and added as inflow to the appropriate lake. The procedure is relatively simple, and it is felt that the assumptions are reasonable and compatible with the available data to define the aquifer parameters. Included in Appendix 4 is a summary of the aquifer and piezometer parameters necessary to calculate the lake seepage flux (such as aquifer permeability, thickness, distance of piezometer to shore, and shoreline length of sub-basin, etc.).

Seepage has been found to be rather insignificant for the lower three lakes where the soil permeability is lower and the topographic gradient is small. Seepage is more significant in the upper two lakes and, as expected, it is more important during the dry periods when surface inflows are diminished. For example, maximum seepage found at East Lake Tohopekaliga during the

initial dry months approaches 40% of the total surface inflow. Overall, seepage is not very large representing from 1% to 8% of the total inflow during the study period.

D. Storage Change

Stage-storage and stage-area rating data are available from the Army Corps of Engineers. To facilitate computerization, polynomial equations were fitted to the data and the regression coefficients are tabulated in Appendix 5.

Relatively good stage-storage and stage-area ratings are available for Lakes Tohopekaliga and East Tohopekaliga; however, the rating data for the lower three lakes are of poorer quality because of inadequate survey data. Errors in the rating affect daily water budget computations significantly, but the effects diminish with longer computational time intervals, such as monthly or annual water budgets.

Storage change is calculated by multiplying the mean stage change by the mean pool area of the day. The mean stage change is calculated as half the difference between the previous day stage and the next day stage.

E. Water Budget Residual

The residual is calculated by (1) summing rainfall and all gaged and estimated inflows, (2) subtracting evaporation and all gaged and estimated outflows, and (3) adjusting for the storage change. The residual includes errors of all hydrologic components, and all unknown flows that have not been estimated. Examples of unknown flows are overland flow, ungaged tributary inflows, and inflows originating between the gaging stations and the lake boundary. Since the residual term includes not only errors but also all unknown

flows, some bias is expected. A more detailed discussion of the water budget residuals is presented in the next section.

F. Data Management

The water budget computation requires the management of data from more than 70 hydrologic stations. The data originate from various sources, and the data records are heterogeneous: some are continuous daily values, some are semi-continuous with periodic missing record, some are random daily, and others are continuous 30-minute time interval data. The data are being continuously updated, scrutinized , and corrected if necessary. Because of the volume and complexity of the data, a good systematic management of data is essential.

A data base based on the Scientific Information Retrieval software (SIR) was set up to handle the data. This provides systematic procedures to update records, to verify data, to make corrections, to handle missing records, and to perform simple tasks of report preparation, setting data selection criteria, and conducting various data analyses.

FIGURE 9. RECOVERY TEST

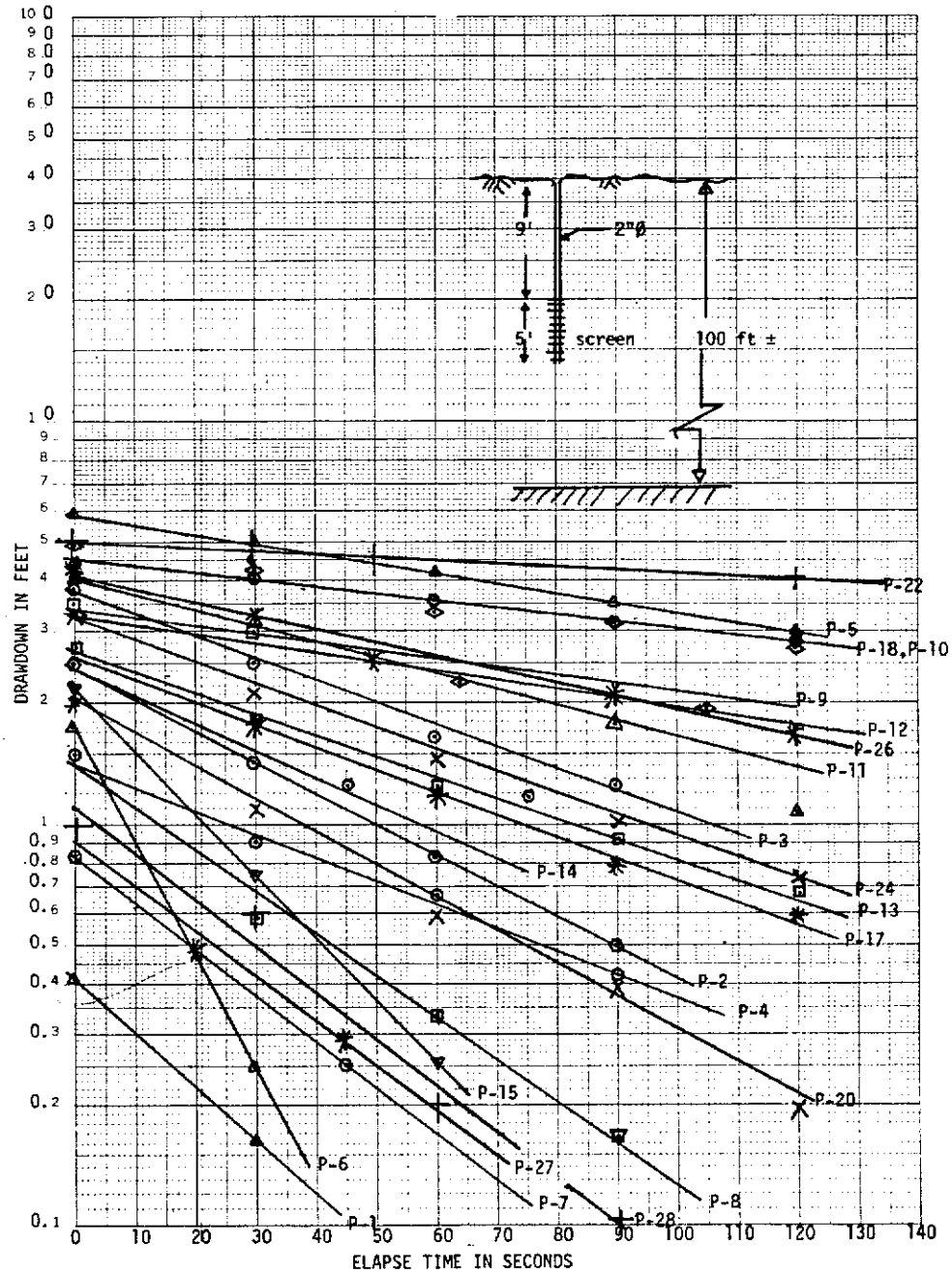
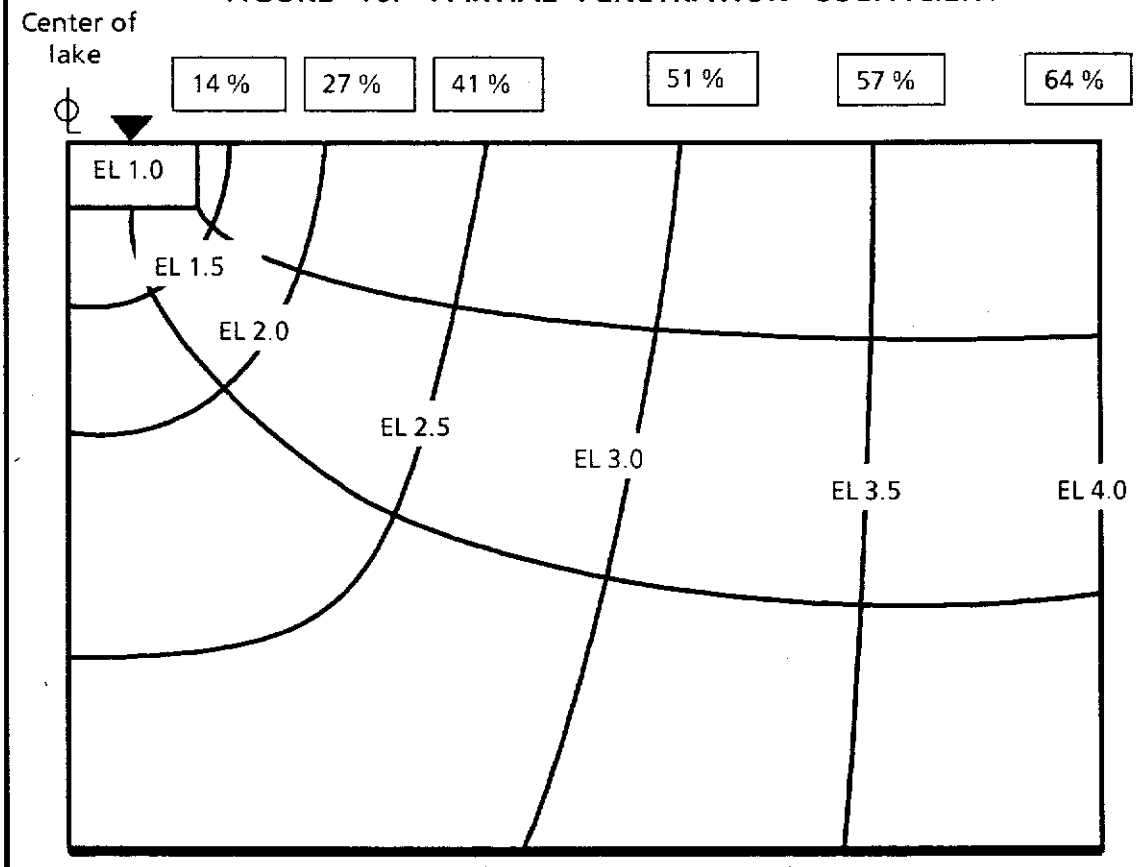


FIGURE 10. PARTIAL PENETRATION COEFFICIENT



SCALE: Same unit vertical and horizontal

This lake penetrates 9 % of the aquifer

LEGEND

41 % — Partial penetration coefficient equals 41 % if seepage is calculated by Darcy equation using stage data at this point (see example)

EL 1.5 — Equipotential line in ft

EXAMPLE

Actual seepage by flownet
QA = (3/6)(4.0-1.0)K = 1.5K

Seepage by Darcy equation KiH
Q = K((2.5-1.0) / 14.7) (36) = 3.67K

Therefore Coef = QA / Q = 41 %

V. ANALYSIS OF WATER BUDGET RESULTS

The results of the water budgets for all five lakes are presented in bar charts in Figures 11 to 15. The bar charts provide comparisons of the hydrologic components so that their relative impacts on the water budget can be assessed. The data are expressed in inches of depth over the pool area so that comparisons in the same scale between lakes can be made. Detailed computer output data for the water budgets are included in Appendix 12.

The water budget must be interpreted in light of the rainfall conditions, since the sensitivity of different hydrologic components can change substantially from dry to wet cycles. Figure 16 is a plot of dry and wet season rainfall between 1970 and 1983. The study period began with a very dry cycle from 1981 to mid-1982; thereafter, a relatively wet cycle prevailed. The initial dry condition was a result of a prolonged antecedent drought of 1980-1981. There were virtually no structure discharges during this dry cycle, while structure discharges dominated the water budget during the ensuing wet cycle. For example, between February and April 1983, total discharge at S-65 amounted to an equivalent of 15 feet of water or two and a half times the storage in Lake Kissimmee.

In general, the magnitude of the residual term increases with the amount of rainfall and inflows. This is reflected in two ways. First, the residual term is statistically smaller during the initial dry cycle than during the later wet cycle. This is evidenced by inspecting the water budgets of East Lake Tohopekaliga and Lake Tohopekaliga which covered both cycles (Figures 11 and 12). Second, the larger the amount of inflow the lake receives, the greater the residual is likely to be. Since, naturally, the amount of inflow is greater in downstream lakes than in upstream ones, the magnitude of the residual is also higher. For example, the

average monthly residuals for East Lake Tohopekaliga and Lake Kissimmee are, respectively, 2415 and 17043 acre-feet.

The monthly residuals are summarized in Table 5. For comparative purposes, the residuals are expressed in four different ways (acre-ft, inches of depth, % of lake volume, and % of total discharge). It is clear from Table 5 that the trends of the residuals are somewhat inconsistent among the different ways the residuals are expressed. Nevertheless, the trends indicate that, in general, the water budget residuals in the upper two lakes are smaller (relatively or absolutely) than those in the lower three lakes.

Water budget residuals in the lower three lakes are generally larger because: (1) the inflows are much less adequately gaged, (2) the magnitude of total inflow is relatively large in relation to the size of the lakes during the 1982-1983 study period, particularly at Lake Cypress and Lake Hatchineha, (3) the stage-storage and stage-area ratings for the lower three lakes are of poorer quality because of inadequate topographic data, and (4) the discharges at C-36 and C-37 were the dominating components in the lower three lakes during the study period, and any small variation in their esitmates led to relatively large errors. The water budgets of Lake Hatchineha are particulary affected because C-36 and C-37 discharges dominated both the inflow and outflow.

TABLE 4
COMPARISON OF RESIDUALS

Lake	Average monthly residual Acre-Ft	Depth (inch)	% of Lake Volume	% of Discharge	Period
East Toho	2415	2.3	2	16	1981-1983
Toho	-1248	-0.7	-1	-3	1981-1983
Cypress	-1175	-3.3	-4	-3	1982-1983
Hatchineha	12572	15.5	23	19	1982-1983
Kissimmee	17043	4.8	5	12	1982-1983

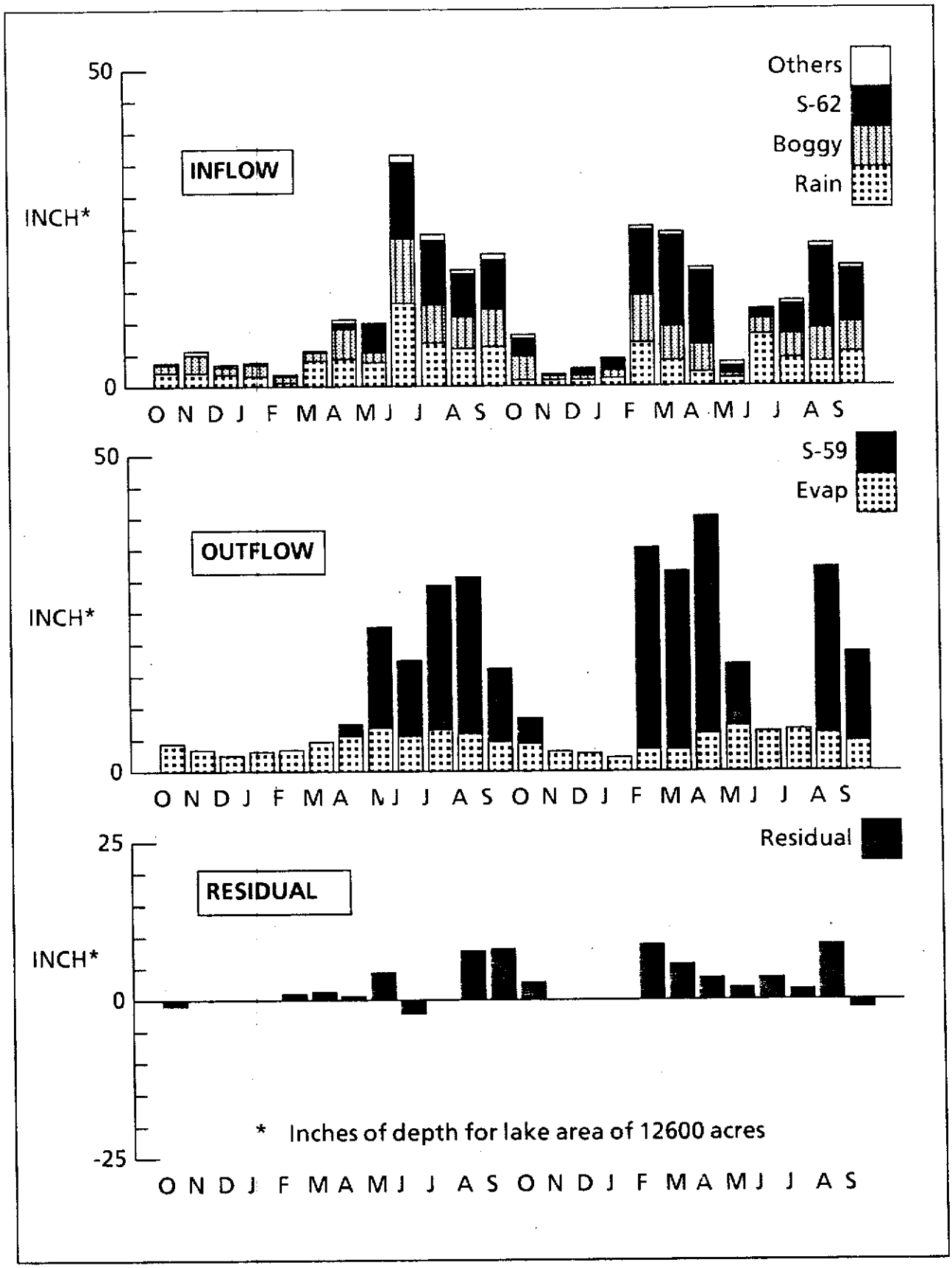


FIGURE 11. EAST LAKE TOHOPEKALIGA WATER BUDGET (1981-1983)

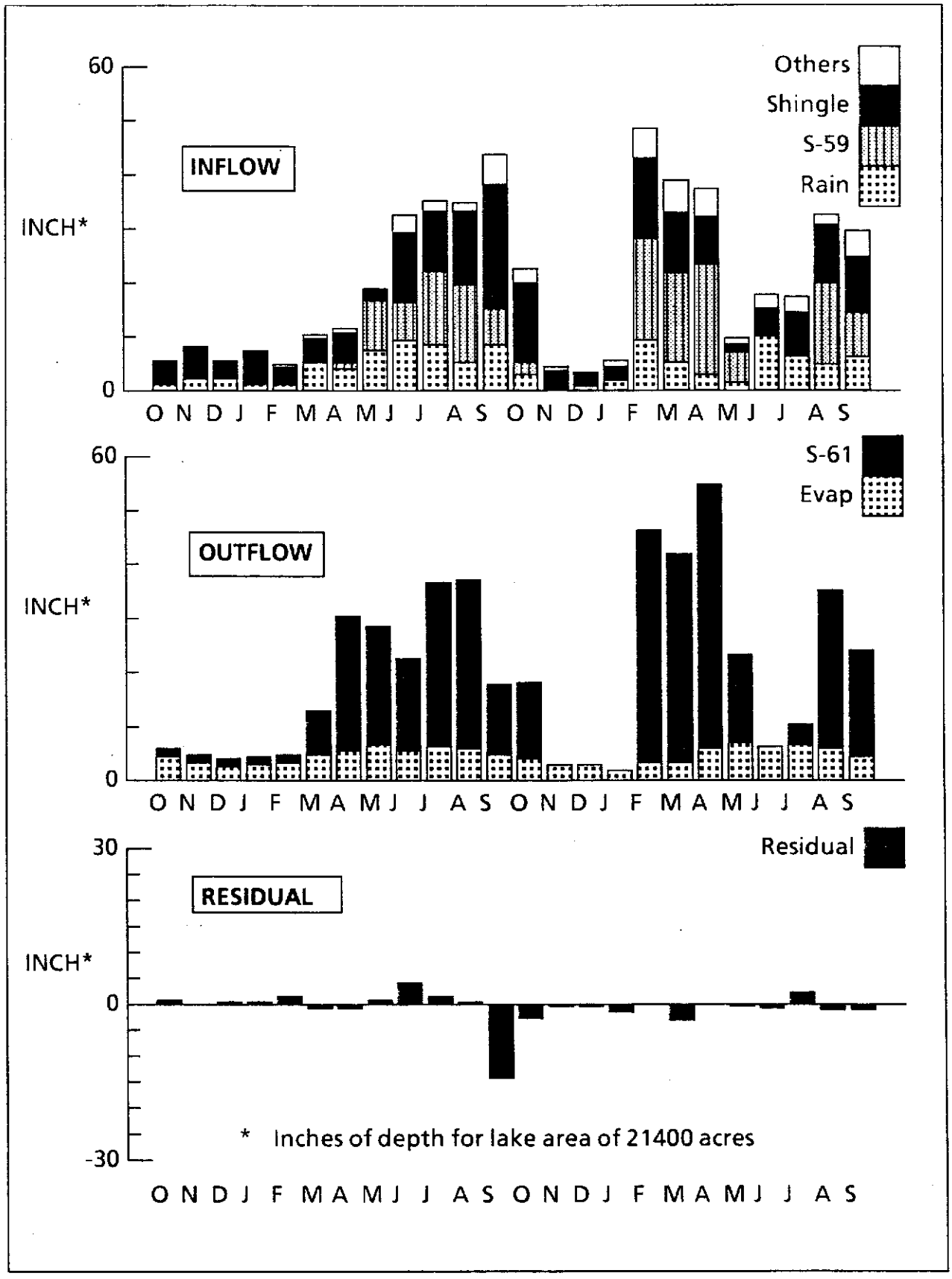


FIGURE 12. LAKE TOHOPEKALIGA WATER BUDGET (1981-1983)

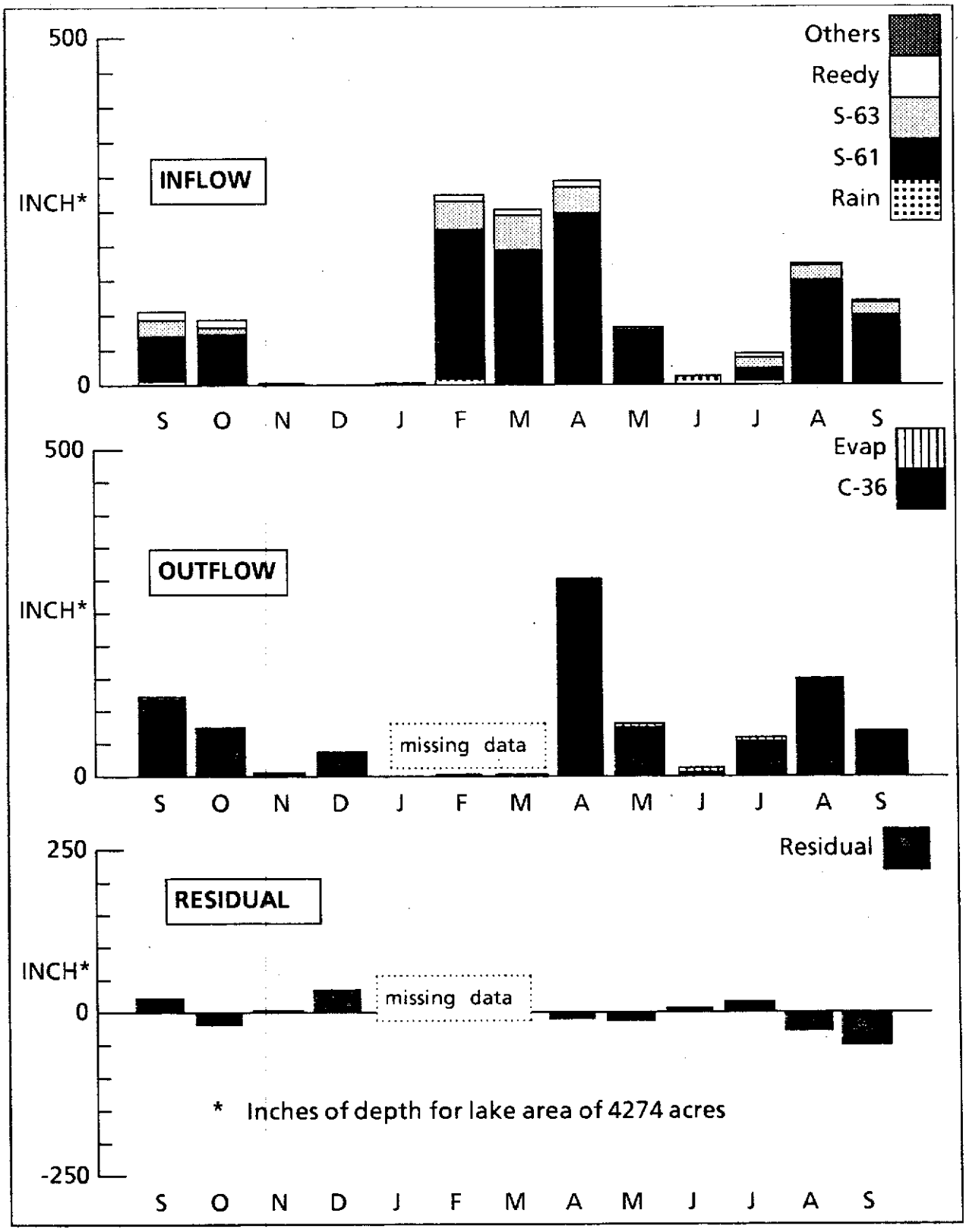


FIGURE 13. LAKE CYPRESS WATER BUDGET (1982-1983)

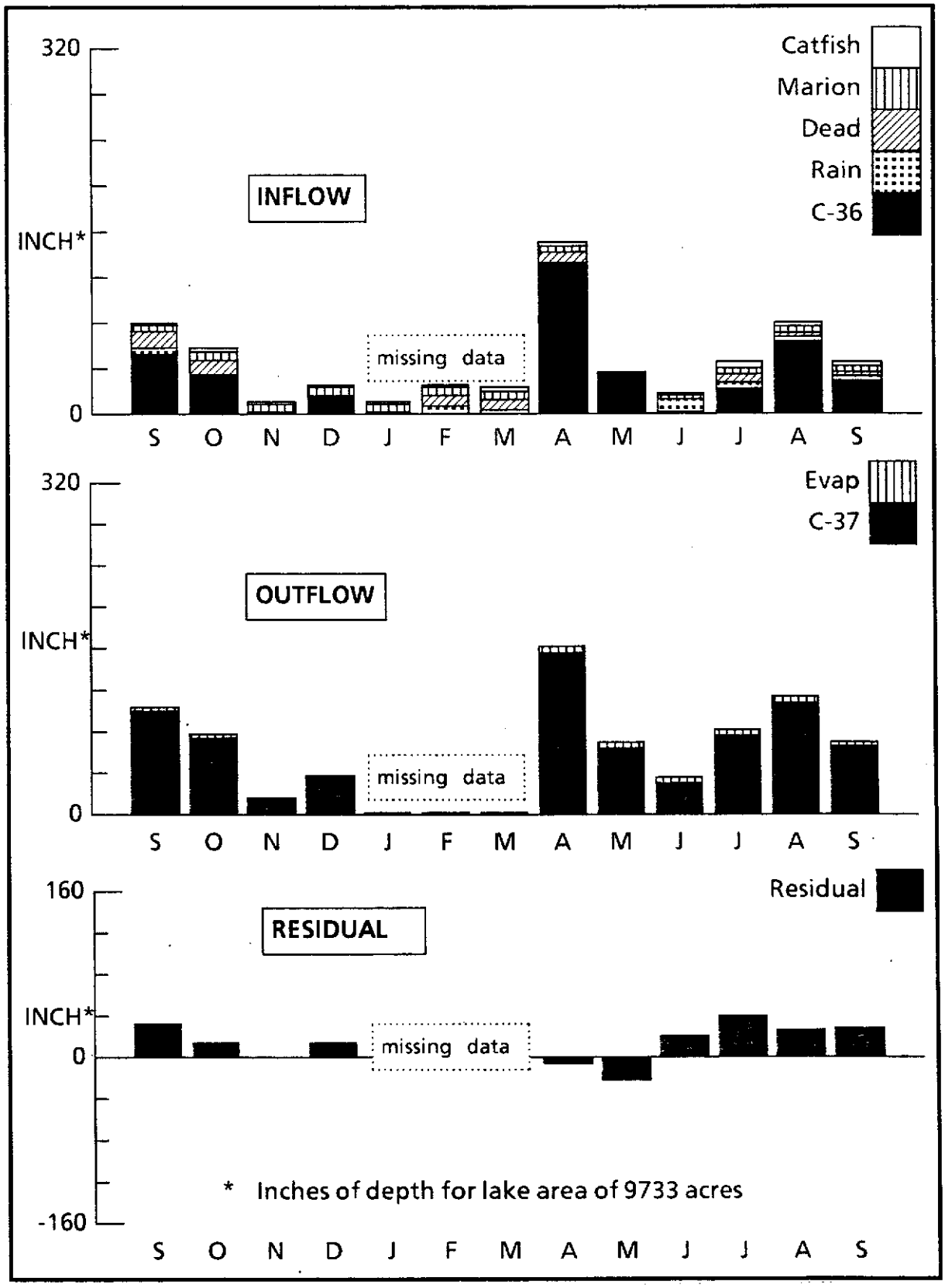


FIGURE 14. LAKE HATCHINEHA WATER BUDGET (1982-1983)

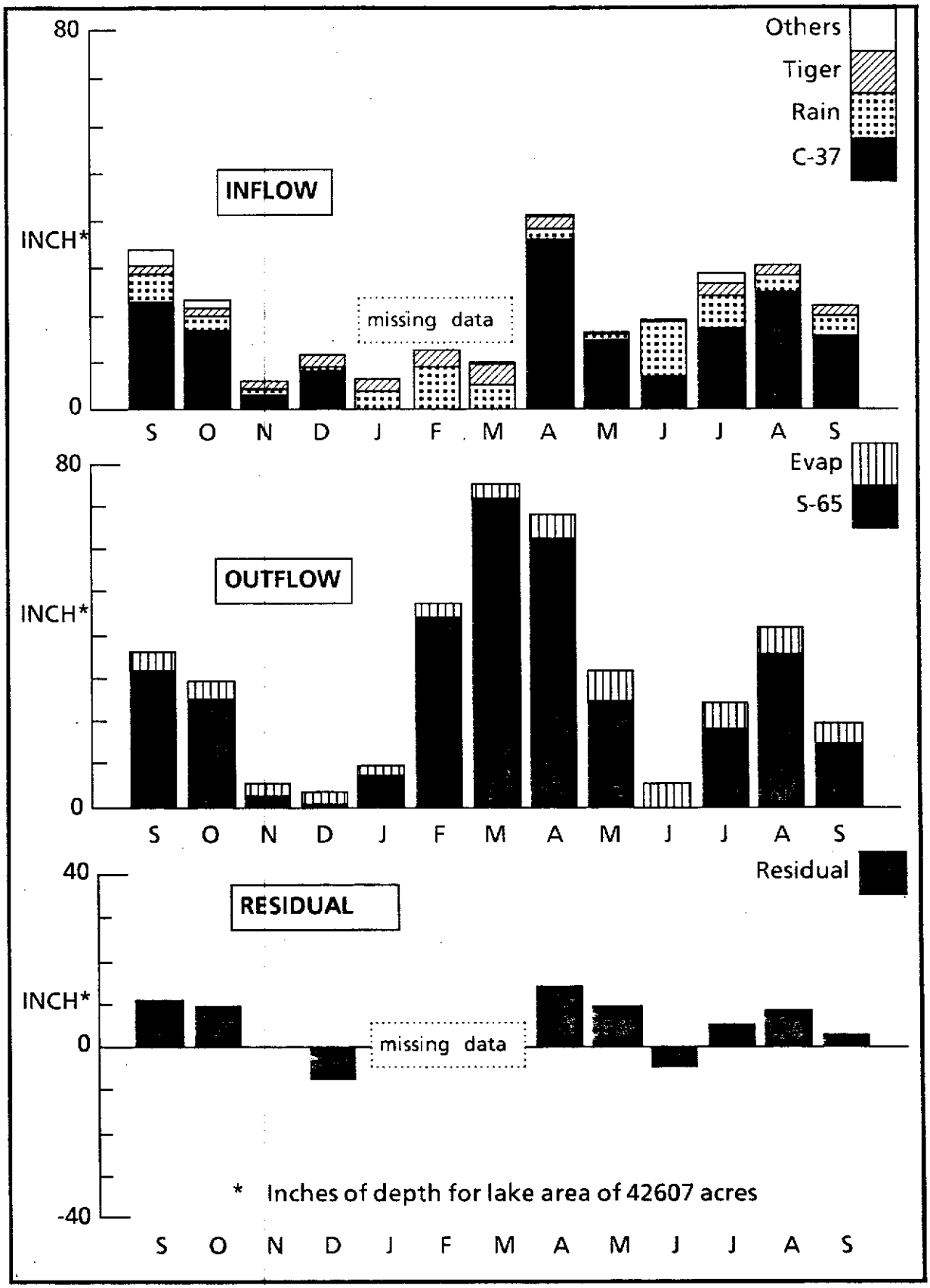


FIGURE 15. LAKE KISSIMMEE WATER BUDGET (1982-1983)

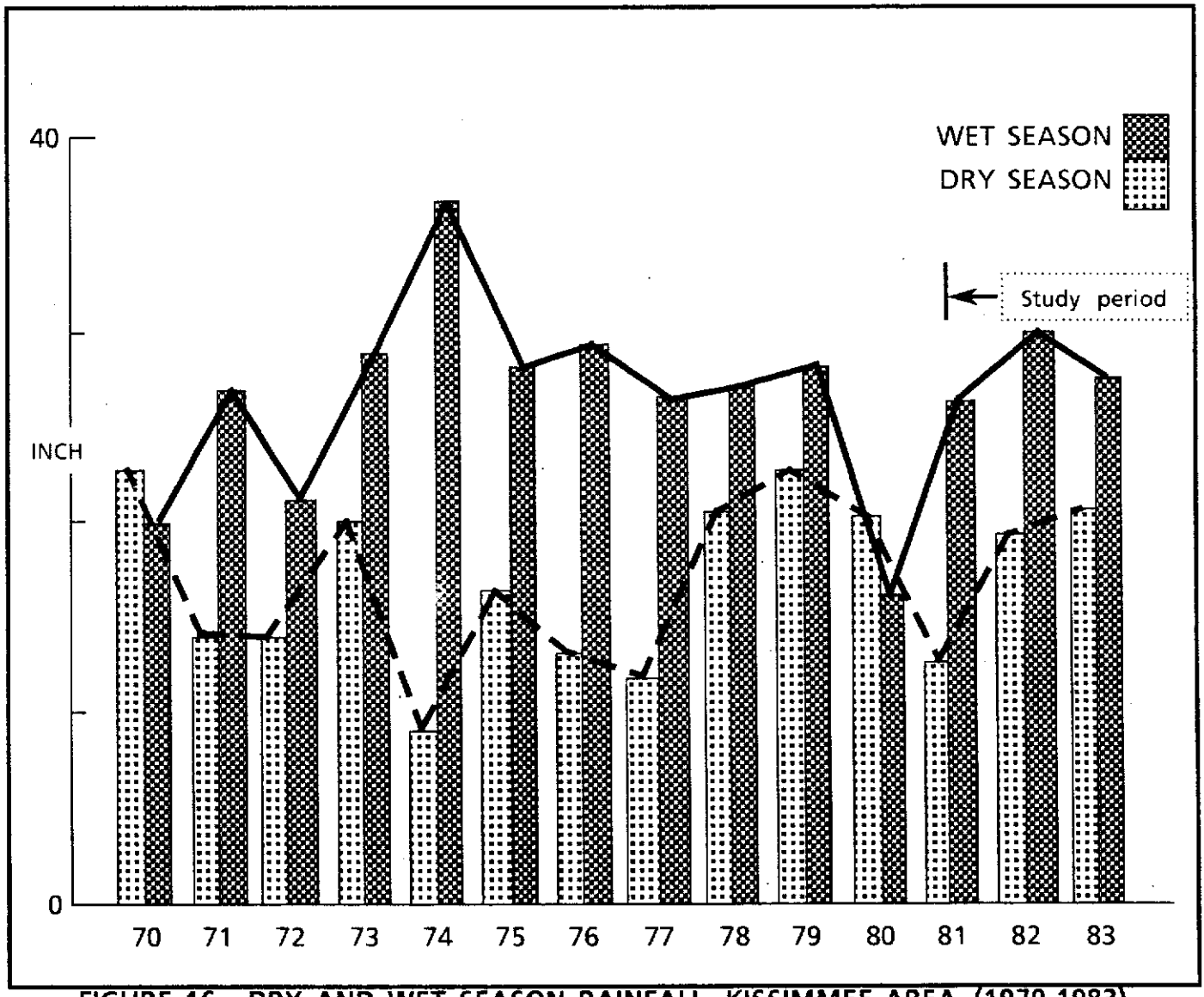


FIGURE 16. DRY AND WET SEASON RAINFALL, KISSIMMEE AREA (1970-1983)

VI. APPRAISAL AND FORECAST

Problems were encountered during the study. Data requested from outside sources were generally late, which caused the scheduled quarterly water budget completion to be generally late by one to three months. The time lag in obtaining the stage data also affected an early establishment of the rating equations for some tributaries. It was often necessary to wait for six months to obtain stage data to plot the flow measurement data. Other problems included theft of a recorder at Reedy Creek, storm destruction of recorders and/or weir structures at Jim Branch Creek, Mill Slough, and West City Ditch. These all led to some loss of record; however, a correlation method was used to fill in the missing records. Loss of stage records at Lake Hatchineha affects the water budget computation most significantly since the data are needed to calculate flows at C-36 and C-37 which have been identified to be the major components.

The water budget computation has helped to discover discharge computation errors in the SFWMD structure rating program. Modification of the program was promptly made, and the water budget computation was used to verify the accuracy of the revision.

The stream flow data collected from the gaging stations installed for this study have provided a wealth of data that can be used in the future to develop rainfall runoff relationships for sub-basins in the Kissimmee area. Several gaging stations are located at key locations where continuous hydrologic information is undoubtedly needed due to anticipated development encroachment. These stations will be maintained on a permanent basis when this study ends.

Without physical data, seepage was generally estimated in the past by the water budget residual method and was subject to criticism. Because of the installation of piezometers, data are available to estimate the seepage by an independent, physically based method. The drilling of the piezometers provided

important information on the characteristics of the surficial aquifer and resulted in probably the first extensive survey of the surficial aquifer in the study area.

Our data collection for the upper two lakes will end in October 1984. Data collection for the lower three lakes will continue until May 1985. This will result in approximately three years of data for the upper two lakes and two years of data for the lower three lakes.

As of the subject date of this report, all major planning tasks for the study are complete. These include all installation work, survey, data collection and processing planning. The main work items remaining are a continuation of routine data collection, data processing, and updating of water budgets. Specific objectives in 1984-1986 are to:

1. Continue data analysis and preparation of preliminary water budgets on a quarterly basis.
2. Update flow rating equations by scheduling additional flow measurements and revise the preliminary water budgets as new information becomes available.
3 Submit final water budgets of all five lakes for the entire study period according to the following time table with the contingency of data availability from all sources:

	WATER BUDGET PERIOD	DATE OF SUBMITTAL
Upper two lakes	October, 1981 to October-1984	March, 1985
Lower three lakes	October, 1982 to May, 1985	January, 1986

4. Complete a final report on the hydrologic procedure soon after the final water budgets of the lower three lakes are ready.

BIBLIOGRAPHY

Bouwer, H., Groundwater Hydrology, New York, McGraw-Hill Book Co., 1978.

Frazee, J. M., Ground Water in Osceola County, Florida, U.S.G.S. 1980.

Kohler, M. A., Nordenson, T. J. and Baker, D. R., "Evaporation Maps for U. S.", Weather Bureau Technical Paper, Number 37, Dept. of Commerce, 1957.

Rose H. Glen and Smith H. F., "A Method for Determining Permeability and Specific Capacity from Effective Grain Size", Illinois State Water Survey Circular, Number 59, 1957.

Stephens, J. C. Evapotranspiration Studies Pertaining to Agricultural Watershed in Florida. USDA, ARS, Fort Lauderdale, Florida

Terzaghi, K., Peck, R. B., Soil Mechanics in Engineering Practice, 2 nd Edition, John Wiley & Sons, Inc., 1967.

U. S. Bureau of Reclamation, Drainage Manual, Washington, U.S. Government Printing Office, 1978.

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APPENDIX 1

LIST OF RAINFALL STATIONS

LAKE	STATION	WEIGHING FACTOR
EAST TOHO	MRF8	1
	MRF4	1
	MRF12	1
TOHO	MRF12	1
	MRF162	1
	MRF18	1
	MRF17	1
CYPRESS	MRF18	1
	MRF23	1
	MRF24	1
HATCHINEHA	MRF24	2
	MRF18	1
	MRF140	2
	MRF23	1
KISSIMMEE	MRF23	1
	MRF24	1
	MRF27	1
	MRF28	1

APPENDIX 2
PIEZOMETER SOIL LOG

P1	Loose gray f/m silty sand, 10 gpm, clean up quickly, smell sulfide, static at 6 ft.
P2	Loose gray silty m sand, 2 gpm, static at 6ft.
P3	Loose gray silty m sand, 3.3 gpm.
P4	Loose gray f/m silty sand, no return flow when cleaning, pumped less than 0.5 gpm, static at 8.1 ft
P5	White silty f sand, clean up quickly, 0.8 gpm, static at 3.5 ft
P6	Gray f/m sand, 18 gpm, clean up quickly, smell sulfide, static at 5.5 ft
P7	Gray f/m silty sand, developed quickly, 6 gpm, clear water, smell sulfide, static at 5 ft.
P8	White silty f sand, hit slightly clayey silty f sand at 17 ft, less than 0.5 gpm, water clear, no smell, static at 8 ft.
P9	White silty f sand, trace clay, water clear, slightly sulfide smell, static at 5.9 ft, less than 0.5 gpm.
P10	White silty f sand, hard to get return flow, static at 9 ft.
P11	White f silty sand, 0.8 gpm, no smell, 6 ft static.
P12	Gray f silty sand, 0.6 gpm, static at 5 ft, clean water.
P13	White f silty sand, trace clay, 3.5 gpm, static at 4.5 ft, clean water.
P14	Top layer with light gray silty f sand; Bottom layer with gray f/m silty sand, static at 6.2 ft, 3 gpm, water clean.
P15	Gray silty f/m sand, 6 gpm, static at 6 ft.
P17	Very loose white silty f sand, no return flow, pump readily, 3.5 gpm, static at 4 ft.
P18	Gray silty f/m sand, 0.2 gpm, static at 2 ft.
P20	Gray very loose f/m silty sand, pump water immediately, clean, 5 gpm, static at 5 ft, water emerged 2 ft from hole when cleaning.
P22	Dark gray silty f/m sand, 0.1 gpm, static at 6.5 ft, clean water.
P23	Dark gray silty f/m sand, 8 gpm, static 6 ft, water silty.
P24	White f silty sand, very loose, pump readily, 0.8 gpm, static at 4.2 ft, a lot of silt when pumping.
P26	Gray very loose m/f sand, 2 gpm, static at 4 ft, hole collapsed and needed to re-drill.
P27	Very loose white silty f sand, 14 gpm, clean up quickly, static at 4 ft
P28	Gray silty f sand, with trace of clay at 10 ft, 6 gpm, static at 4.5 ft, water clean up, soil tight.

APPENDIX 3
PERMEABILIY ESTIMATION BASED ON GRAIN SIZE DISTRIBUTION

Water Well Journal Method

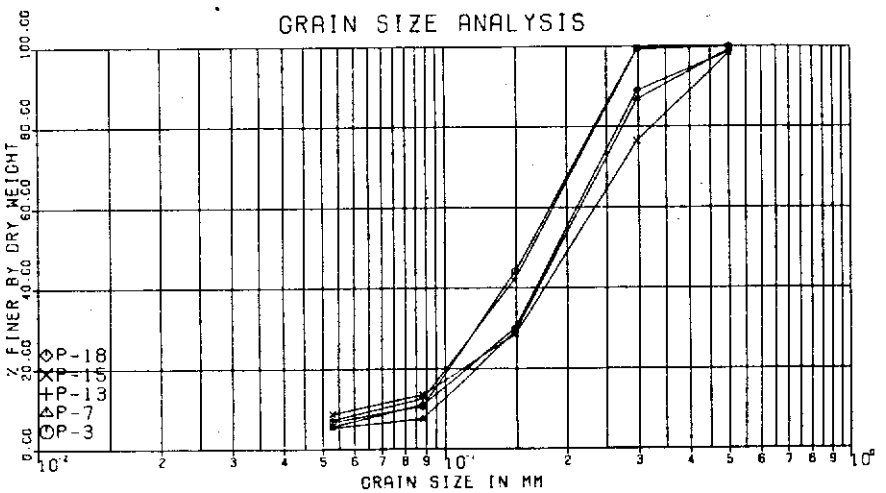
Average D_{20} (Grain size at 20 % finer) = 0.1mm
K from graph = 200 gpd/ft^2
(see reference) = 30 ft/d

Terzaghi Method

$K = CD_{10}$

where K = permeability, cm/s
D_{10} = grain size. cm
C = Coefficient between 100 to 150. Use 130 for loose sand.

D_{10}(cm)	K (cm/s)	K(ft/d)	Location
0.006	0.0047	13	Toho
0.007	0.006	18	Toho
0.009	0.011	30	East Toho



APPENDIX 4
AQUIFER AND PIEZOMETER PARAMETERS

Lake	Permeability (ft / d)	Aquifer Thickness (ft)
EAST TOHO	30	120
TOHO	20	80
CYPRESS	20	90
HATCHINEHA	15	120
KISSIMMEE	15	140

Station	Distance to Shore (mile)	Shore Line Length (mile)	Location
East Lake Tohopekaliga			
P1	0.6	11.55	North shore
P2	1.8	7.31	West shore
P3	0.6		
P4	0.5	4.68	East shore
P6	0.2	1.63	South shore
P7	1.1		
Lake Tohopekaliga			
P5	1.1	12.58	North shore
MRF 162	2.2		
P9	0.2		
P8	1.6	18.02	West shore
P13	1.7		
P12	1.6		
P14	2.0		
P10	0.4	10.42	East shore
P11	0.8		
P18	1.3		
MRF17	1.5		
P15	0.6		
Lake Cypress			
P17	0.7	10.24	All shores
Lake Hatchineha			
P22	1.2	25.32	All shores
P23	1.9		
MRF24	2.0		
Lake Kissimmee			
MRF28	5.2	22.90	East shore
P28	0.3		
MRF23	4.1	27.63	West shore
P24	1.2		
P20	0.2		
P27	1.4		

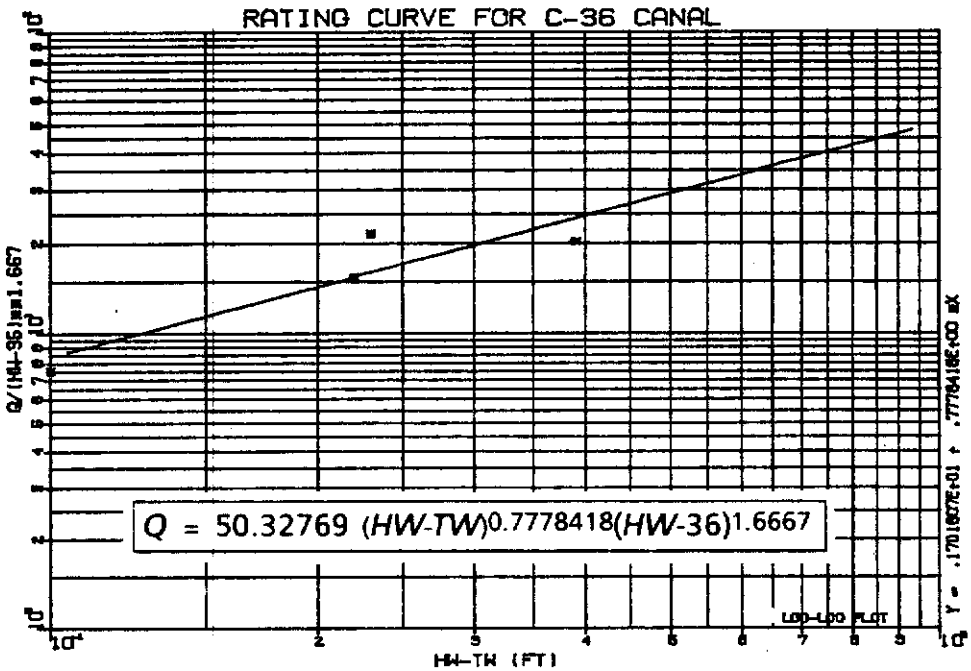
APPENDIX 5
STAGE-STORAGE AND STAGE-AREA RATING EQUATIONS

$$STOR = C1(H)^4 + C2(H)^3 + C3(H)^2 + C4(H) + C5$$
$$AREA = D1(H)^4 + D2(H)^3 + D3(H)^2 + D4(H) + D5$$

Where
- $STOR$ = lake volume (acre-ft)
- $AREA$ = lake area (acres)
- H = stage (ft, msl)
- $C1$ to $C5$ = coefficients for storage rating (see table below)
- $D1$ to $D5$ = coefficients for area rating (see table below)

LAKE	C1	C2	C3	C4	C5
ALLIGATOR	-.44642E+01	.12365E+04	-.12698E+06	.57243E+07	-.95951E+08
MYRTLE	.30003E+01	-.70777E+03	.62076E+05	-.24681E+07	.36453E+08
HART	.21158E+00	-.41567E+02	.30971E+04	-.10227E+06	.12449E+07
GENTRY	.29258E+01	-.70274E+03	.63313E+05	-.25342E+07	.38012E+08
EAST TOHO	.28294E+01	-.64921E+03	.56075E+05	-.21481E+07	.30729E+08
TOHO	0.	.24719E+02	-.33108E+04	.16141E+06	-.26280E+07
CYPRESS	.43142E+00	-.91027E+02	.72950E+04	-.25675E+06	.34006E+07
HATCHINEHA	-.15127E+01	.28460E+03	-.19507E+05	.57013E+06	-.62506E+07
KISSIMMEE	.14024E+02	-.26036E+04	.19334E+06	-.61833E+07	.73906E+08

LAKE	D1	D2	D3	D4	D5
ALLIGATOR	-.22386E+02	.56410E+04	-.53240E+06	.22315E+08	-.35034E+09
MYRTLE	.20264E+01	-.46193E+03	.42983E+05	-.17039E+07	.25327E+08
HART	.29565E+00	-.67473E+02	.57658E+04	-.22044E+06	.31507E+07
GENTRY	.15463E+01	-.36074E+03	.32609E+05	-.12861E+07	.19074E+08
EAST TOHO	-.26352E+00	.64992E+02	-.59400E+04	.24036E+06	-.36178E+07
TOHO	-.16619E+01	.36790E+03	-.30441E+05	.11172E+07	-.15346E+08
CYPRESS	0.	.17257E+01	-.27508E+03	.14590E+05	-.25675E+06
HATCHINEHA	0.	-.60509E+01	.85441E+03	-.39014E+05	.57813E+06
KISSIMMEE	0.	.56094E+02	-.80513E+04	.38667E+06	-.61833E+07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Q/(HW-36)**1.667
HW-TW (FT)
LOG-LOG PLOT
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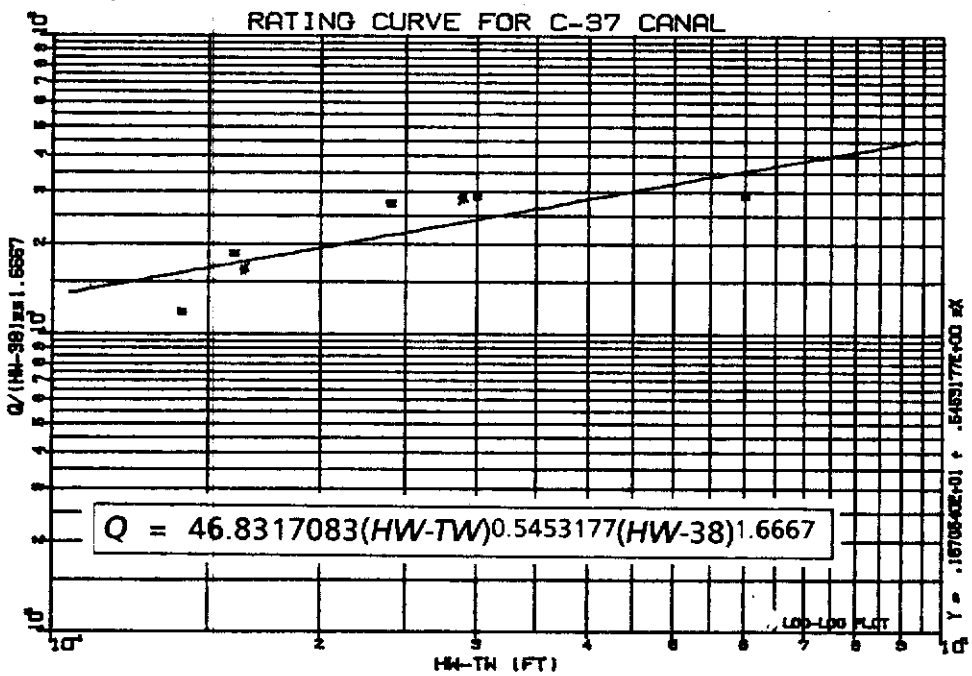
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HW-TW (FT)
LOG-LOG PLOT
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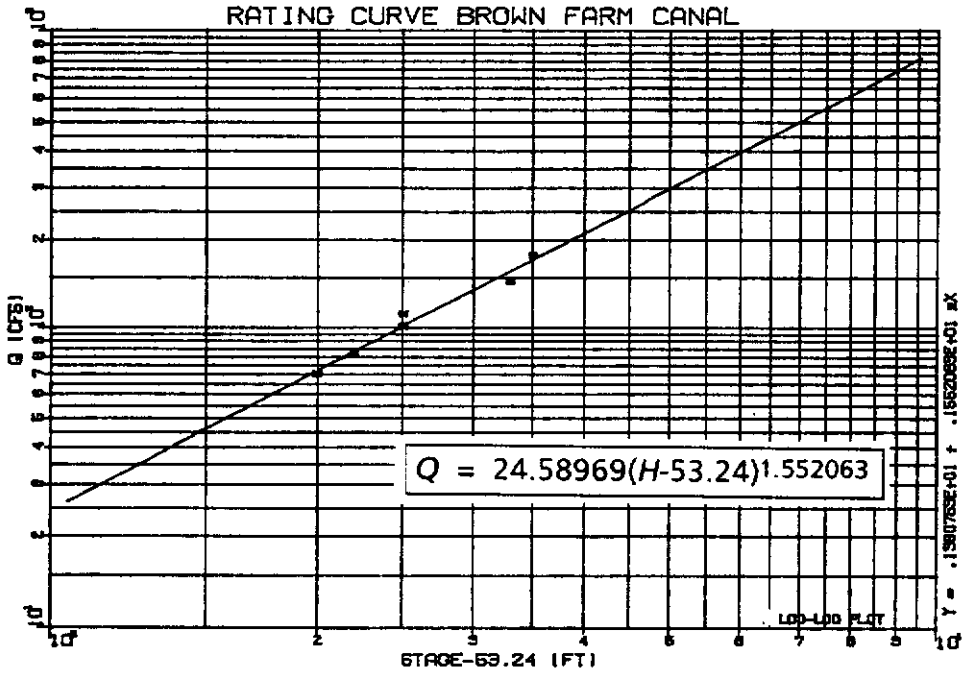
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Q (CFS)
STAGE-53.24 (FT)
LOG-LOG PLOT
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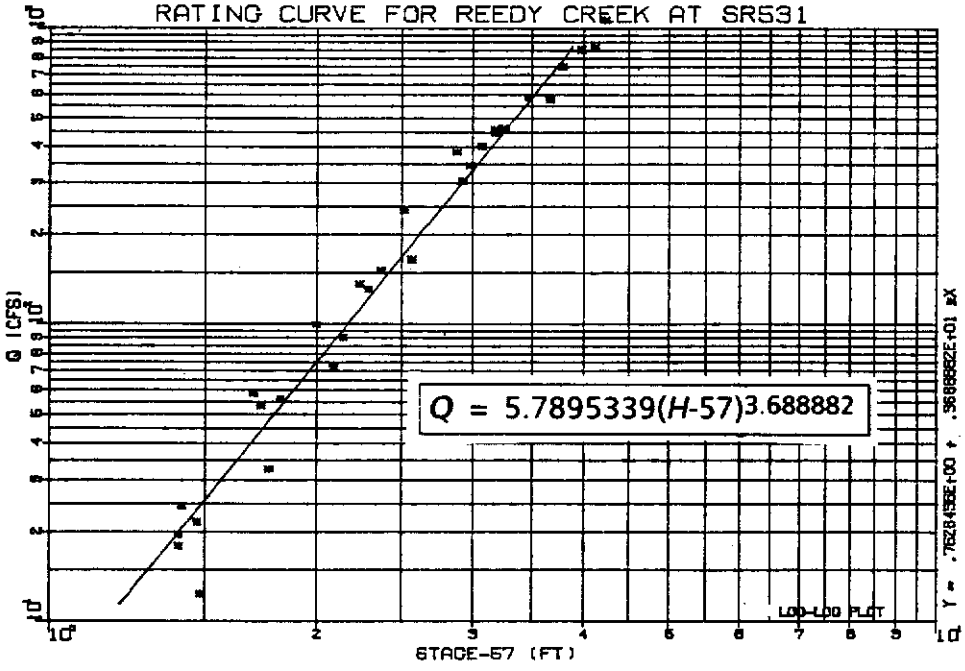
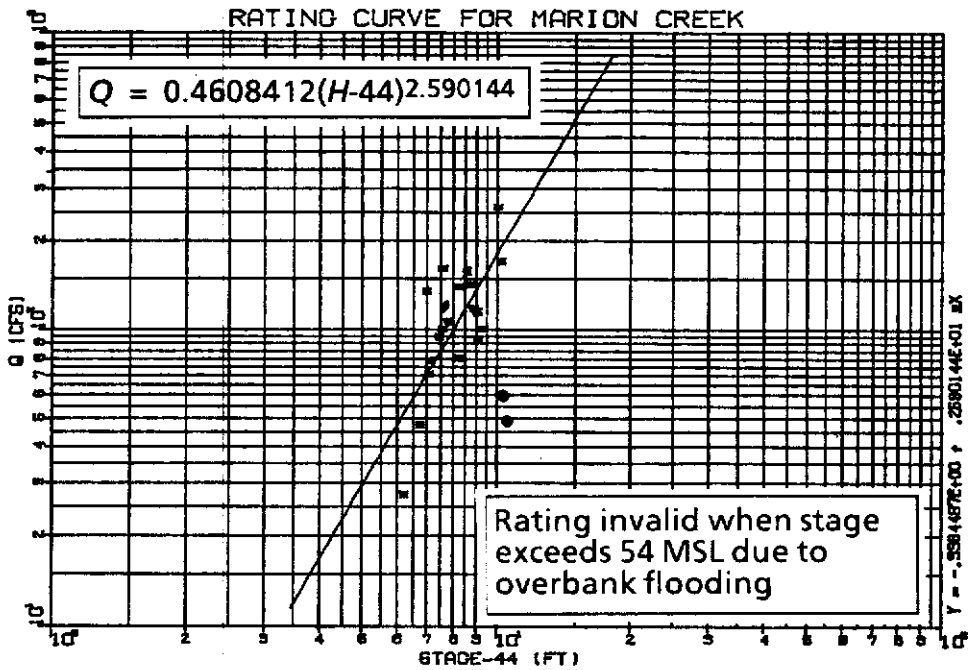
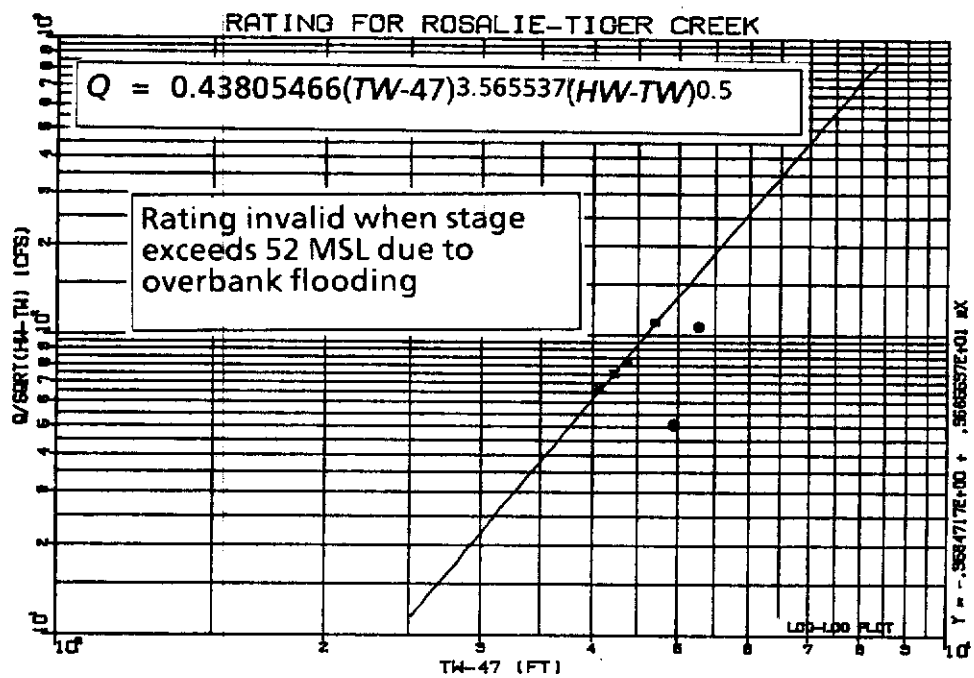

RATING CURVE FOR REEDY CREEK AT SR531
Q (CFS)
STAGE-57 (FT)
LOG-LOG PLOT
Q = 5.7895339(H-57)3.688882


RATING CURVE FOR MARION CREEK
Q = 0.4608412(H-44)2.590144
Rating invalid when stage exceeds 54 MSL due to overbank flooding
Q (CFS)
STAGE-44 (FT)


RATING FOR ROSALIE-TIGER CREEK
Q = 0.43805466(TW-47)3.565537(HW-TW)0.5
Rating invalid when stage exceeds 52 MSL due to overbank flooding
Q/SQRT(HW-TW) (CFS)
TW-47 (FT)
LOG-LOG PLOT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
10-02-81	0.	210.	113.	0.	0.	3.	3.	16.	-28.	46.	55.43
10-03-81	0.	202.	101.	0.	0.	3.	3.	16.	-141.	-62.	55.42
10-04-81	0.	185.	89.	0.	0.	2.	3.	16.	-140.	-67.	55.40
10-05-81	0.	252.	79.	0.	0.	2.	3.	16.	-56.	95.	55.40
10-06-81	0.	176.	71.	0.	0.	2.	3.	16.	-56.	28.	55.39
10-07-81	0.	168.	61.	0.	0.	1.	3.	16.	-56.	30.	55.39
10-08-81	0.	193.	50.	0.	0.	1.	3.	16.	-84.	39.	55.38
10-09-81	0.	176.	54.	0.	0.	1.	3.	16.	-112.	-10.	55.37
10-10-81	0.	118.	56.	0.	0.	1.	3.	16.	-112.	-71.	55.36
10-11-81	0.	227.	50.	0.	0.	1.	3.	16.	-196.	-39.	55.35
10-12-81	0.	193.	44.	0.	0.	1.	3.	16.	-308.	-179.	55.33
10-13-81	0.	202.	40.	0.	0.	1.	3.	16.	-252.	-110.	55.30
10-14-81	10.	168.	36.	0.	0.	1.	3.	16.	-112.	-10.	55.28
10-15-81	63.	193.	34.	0.	0.	1.	3.	16.	28.	104.	55.27
10-16-81	0.	101.	32.	0.	0.	0.	3.	16.	-28.	21.	55.28
10-17-81	0.	218.	30.	0.	0.	0.	3.	16.	-56.	113.	55.27
10-18-81	0.	118.	28.	0.	0.	0.	3.	16.	-84.	-14.	55.27
10-19-81	0.	126.	28.	0.	0.	0.	3.	16.	-279.	-201.	55.25
10-20-81	0.	168.	26.	0.	0.	0.	3.	16.	-251.	-128.	55.23
10-21-81	0.	176.	24.	0.	0.	0.	3.	16.	-111.	22.	55.21
10-22-81	0.	92.	24.	0.	0.	0.	3.	16.	0.	49.	55.21
10-23-81	0.	202.	22.	0.	0.	0.	3.	16.	0.	160.	55.21
10-24-81	409.	160.	26.	0.	0.	0.	3.	16.	167.	-128.	55.21
10-25-81	0.	218.	36.	0.	0.	1.	3.	16.	139.	302.	55.24
10-26-81	535.	92.	34.	0.	0.	1.	3.	16.	-84.	-580.	55.23
10-27-81	21.	151.	36.	0.	0.	1.	3.	16.	0.	74.	55.23
10-28-81	0.	59.	38.	0.	0.	1.	3.	16.	28.	29.	55.23
10-29-81	0.	101.	40.	0.	0.	1.	3.	16.	167.	208.	55.23
10-30-81	1375.	126.	50.	0.	0.	1.	3.	16.	335.	-985.	55.26
10-31-81	126.	92.	97.	0.	0.	3.	3.	16.	140.	-13.	55.29
TOTAL:	2541.	4864.	1444.	0.	0.	29.	89.	493.	-1542.	-1275.	

TOTAL INFLOW = 4597. ACRE-FT
TOTAL OUTFLOW = 4864. ACRE-FT
TOTAL SEEPAGE = 493. ACRE-FT
STORAGE CHANGE = -1542. ACRE-FT
RESIDUE INFLOW = -1275. ACRE-FT
MEAN LAKE STAGE = 55.30 FT
MEAN LAKE AREA = 11183. ACRE
MEAN LAKE VOLUME = 92507. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
11-01-81	598.	160.	101.	0.	0.	3.	3.	17.	-28.	-590.	55.29
11-02-81	0.	143.	91.	0.	0.	2.	3.	17.	0.	30.	55.29
11-03-81	10.	168.	81.	0.	0.	2.	3.	17.	279.	334.	55.29
11-04-81	851.	118.	105.	0.	0.	3.	3.	17.	896.	36.	55.34
11-05-81	672.	50.	192.	0.	0.	5.	3.	17.	704.	-135.	55.45
11-06-81	179.	92.	248.	0.	0.	7.	3.	17.	141.	-220.	55.46
11-07-81	0.	218.	234.	0.	0.	7.	3.	17.	85.	43.	55.47
11-08-81	0.	118.	202.	0.	0.	6.	3.	17.	113.	3.	55.48
11-09-81	0.	118.	173.	0.	0.	5.	3.	17.	254.	175.	55.49
11-10-81	105.	109.	149.	0.	0.	4.	3.	17.	282.	114.	55.52
11-11-81	0.	84.	135.	0.	0.	4.	3.	17.	57.	-17.	55.54
11-12-81	84.	118.	119.	0.	0.	3.	3.	17.	-113.	-221.	55.53
11-13-81	0.	84.	105.	0.	0.	3.	3.	17.	-56.	-100.	55.52
11-14-81	0.	185.	97.	0.	0.	3.	3.	17.	0.	66.	55.52
11-15-81	0.	92.	89.	0.	0.	2.	3.	17.	-28.	-47.	55.52
11-16-81	0.	126.	81.	0.	0.	2.	3.	17.	28.	51.	55.51
11-17-81	42.	118.	77.	0.	0.	2.	3.	17.	0.	-23.	55.52
11-18-81	0.	218.	69.	0.	0.	2.	3.	17.	-56.	71.	55.51
11-19-81	0.	126.	65.	0.	0.	2.	3.	17.	56.	96.	55.51
11-20-81	0.	76.	61.	0.	0.	1.	3.	17.	-56.	-63.	55.52
11-21-81	0.	109.	58.	0.	0.	1.	3.	17.	-169.	-138.	55.50
11-22-81	0.	134.	54.	0.	0.	1.	3.	17.	-56.	4.	55.50
11-23-81	0.	109.	52.	0.	0.	1.	3.	17.	28.	65.	55.50
11-24-81	0.	67.	50.	0.	0.	1.	3.	17.	-141.	-144.	55.50
11-25-81	0.	134.	48.	0.	0.	1.	3.	17.	-141.	-74.	55.47
11-26-81	0.	84.	46.	0.	0.	1.	3.	17.	85.	103.	55.48
11-27-81	0.	134.	46.	0.	0.	1.	3.	17.	56.	125.	55.49
11-28-81	0.	101.	46.	0.	0.	1.	3.	17.	-56.	-22.	55.49
11-29-81	0.	84.	46.	0.	0.	1.	3.	17.	0.	18.	55.48
11-30-81	0.	134.	44.	0.	0.	1.	3.	17.	113.	183.	55.49
TOTAL:	2541.	3612.	2963.	0.	0.	77.	82.	500.	2274.	-278.	

TOTAL INFLOW = 6164. ACRE-FT
TOTAL OUTFLOW = 3612. ACRE-FT
TOTAL SEEPAGE = 500. ACRE-FT
STORAGE CHANGE = 2274. ACRE-FT
RESIDUE INFLOW = -278. ACRE-FT
MEAN LAKE STAGE = 55.47 FT
MEAN LAKE AREA = 11272. ACRE
MEAN LAKE VOLUME = 94561. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
12-01-81	0.	67.	42.	0.	0.	1.	0.	16.	141.	150.	55.50
12-02-81	157.	151.	58.	0.	0.	1.	0.	16.	254.	173.	55.51
12-03-81	294.	59.	75.	0.	0.	2.	0.	16.	170.	-159.	55.54
12-04-81	0.	118.	61.	0.	0.	1.	0.	16.	-113.	-75.	55.54
12-05-81	0.	143.	52.	0.	0.	1.	0.	16.	-198.	-124.	55.52
12-06-81	0.	84.	48.	0.	0.	1.	0.	16.	-85.	-65.	55.50
12-07-81	0.	92.	46.	0.	0.	1.	0.	16.	-28.	2.	55.50
12-08-81	0.	67.	44.	0.	0.	1.	0.	16.	-113.	-106.	55.50
12-09-81	0.	126.	40.	0.	0.	1.	0.	16.	-113.	-43.	55.49
12-10-81	0.	168.	38.	0.	0.	1.	0.	16.	-141.	-27.	55.48
12-11-81	0.	92.	36.	0.	0.	1.	0.	16.	-169.	-129.	55.46
12-12-81	0.	134.	34.	0.	0.	1.	0.	16.	-56.	28.	55.45
12-13-81	0.	59.	34.	0.	0.	1.	0.	16.	113.	121.	55.45
12-14-81	0.	59.	32.	0.	0.	0.	0.	16.	254.	264.	55.47
12-15-81	31.	92.	36.	0.	0.	1.	0.	16.	28.	37.	55.50
12-16-81	105.	151.	36.	0.	0.	1.	0.	16.	-141.	-147.	55.48
12-17-81	0.	84.	34.	0.	0.	1.	0.	16.	56.	90.	55.47
12-18-81	31.	25.	34.	0.	0.	1.	0.	16.	28.	-28.	55.49
12-19-81	10.	67.	34.	0.	0.	1.	0.	16.	-169.	-163.	55.48
12-20-81	10.	59.	32.	0.	0.	0.	0.	16.	-113.	-113.	55.46
12-21-81	10.	92.	30.	0.	0.	0.	0.	16.	0.	36.	55.46
12-22-81	0.	109.	30.	0.	0.	0.	0.	16.	56.	119.	55.46
12-23-81	0.	76.	28.	0.	0.	0.	0.	16.	56.	88.	55.47
12-24-81	0.	67.	28.	0.	0.	0.	0.	16.	28.	51.	55.47
12-25-81	0.	101.	28.	0.	0.	0.	0.	16.	113.	169.	55.47
12-26-81	693.	67.	38.	0.	0.	1.	0.	16.	479.	-201.	55.49
12-27-81	819.	50.	93.	0.	0.	2.	0.	16.	537.	-343.	55.55
12-28-81	0.	34.	125.	0.	0.	3.	0.	16.	198.	87.	55.58
12-29-81	0.	34.	131.	0.	0.	4.	0.	16.	85.	-32.	55.59
12-30-81	0.	143.	115.	0.	0.	3.	0.	16.	57.	65.	55.60
12-31-81	10.	84.	97.	0.	0.	3.	0.	16.	57.	14.	55.60
TOTAL:	2173.	2755.	1583.	0.	0.	33.	12.	489.	1272.	-263.	

TOTAL INFLOW = 4290. ACRE-FT
TOTAL OUTFLOW = 2755. ACRE-FT
TOTAL SEEPAGE = 489. ACRE-FT
STORAGE CHANGE = 1272. ACRE-FT
RESIDUE INFLOW = -263. ACRE-FT
MEAN LAKE STAGE = 55.50 FT
MEAN LAKE AREA = 11286. ACRE
MEAN LAKE VOLUME = 94890. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
01-01-82	0.	92.	83.	0.	0.	2.	0.	16.	-85.	-94.	55.61
01-02-82	0.	92.	73.	0.	0.	2.	0.	16.	28.	30.	55.58
01-03-82	0.	101.	67.	0.	0.	2.	0.	16.	312.	328.	55.61
01-04-82	52.	126.	61.	0.	0.	1.	0.	16.	0.	-5.	55.64
01-05-82	42.	92.	58.	0.	0.	1.	0.	16.	-113.	-138.	55.61
01-06-82	0.	118.	56.	0.	0.	1.	0.	16.	113.	158.	55.62
01-07-82	0.	101.	54.	0.	0.	1.	0.	16.	0.	30.	55.63
01-08-82	10.	84.	52.	0.	0.	1.	0.	16.	28.	33.	55.62
01-09-82	0.	50.	50.	0.	0.	1.	0.	16.	-199.	-215.	55.64
01-10-82	0.	185.	46.	0.	0.	1.	0.	16.	-425.	-303.	55.58
01-11-82	0.	101.	42.	0.	0.	1.	0.	16.	-198.	-156.	55.56
01-12-82	0.	109.	42.	0.	0.	1.	0.	16.	198.	249.	55.55
01-13-82	462.	109.	60.	0.	0.	1.	0.	16.	737.	307.	55.59
01-14-82	672.	118.	107.	0.	0.	3.	0.	16.	484.	-197.	55.68
01-15-82	451.	143.	137.	0.	0.	4.	0.	16.	85.	-380.	55.68
01-16-82	0.	59.	147.	0.	0.	4.	0.	16.	57.	-51.	55.70
01-17-82	0.	50.	131.	0.	0.	4.	0.	16.	57.	-43.	55.69
01-18-82	0.	92.	115.	0.	0.	3.	0.	16.	142.	101.	55.71
01-19-82	0.	84.	101.	0.	0.	3.	0.	16.	57.	21.	55.72
01-20-82	0.	92.	93.	0.	0.	2.	0.	16.	0.	-19.	55.72
01-21-82	0.	101.	87.	0.	0.	2.	0.	16.	0.	-5.	55.72
01-22-82	0.	118.	81.	0.	0.	2.	0.	16.	199.	218.	55.72
01-23-82	10.	118.	75.	0.	0.	2.	0.	16.	143.	157.	55.75
01-24-82	10.	126.	71.	0.	0.	2.	0.	16.	-29.	-2.	55.74
01-25-82	0.	168.	65.	0.	0.	2.	0.	16.	0.	85.	55.75
01-26-82	0.	92.	60.	0.	0.	1.	0.	16.	-143.	-127.	55.74
01-27-82	0.	168.	56.	0.	0.	1.	0.	16.	-142.	-47.	55.72
01-28-82	0.	109.	52.	0.	0.	1.	0.	16.	-85.	-45.	55.72
01-29-82	0.	160.	50.	0.	0.	1.	0.	16.	-28.	65.	55.71
01-30-82	0.	160.	48.	0.	0.	1.	0.	16.	85.	181.	55.71
01-31-82	10.	126.	44.	0.	0.	1.	0.	16.	57.	112.	55.72
TOTAL:	1722.	3444.	2261.	0.	0.	54.	8.	487.	1336.	247.	

TOTAL INFLOW = 4533. ACRE-FT
TOTAL OUTFLOW = 3444. ACRE-FT
TOTAL SEEPAGE = 487. ACRE-FT
STORAGE CHANGE = 1336. ACRE-FT
RESIDUE INFLOW = 247. ACRE-FT
MEAN LAKE STAGE = 55.67 FT
MEAN LAKE AREA = 11372. ACRE
MEAN LAKE VOLUME = 96885. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
02-01-82	10.	134.	42.	0.	0.	0.	0.	15.	0.	67.	55.72
02-02-82	0.	134.	40.	0.	0.	0.	0.	15.	0.	79.	55.72
02-03-82	0.	168.	40.	0.	0.	0.	0.	15.	-57.	56.	55.72
02-04-82	0.	109.	38.	0.	0.	0.	0.	15.	57.	113.	55.71
02-05-82	21.	126.	38.	0.	0.	0.	0.	15.	57.	109.	55.73
02-06-82	0.	176.	38.	0.	0.	0.	0.	15.	0.	123.	55.72
02-07-82	0.	92.	36.	0.	0.	0.	0.	15.	57.	98.	55.73
02-08-82	0.	143.	34.	0.	0.	0.	0.	15.	57.	151.	55.73
02-09-82	179.	92.	36.	0.	0.	0.	0.	15.	86.	-51.	55.74
02-10-82	42.	126.	67.	0.	0.	0.	0.	15.	29.	30.	55.75
02-11-82	0.	109.	60.	0.	0.	0.	0.	15.	86.	120.	55.75
02-12-82	136.	67.	50.	0.	0.	0.	0.	15.	171.	37.	55.76
02-13-82	42.	118.	52.	0.	0.	0.	0.	15.	-57.	-48.	55.77
02-14-82	0.	118.	48.	0.	0.	0.	0.	15.	-171.	-116.	55.75
02-15-82	0.	176.	46.	0.	0.	0.	0.	15.	57.	173.	55.75
02-16-82	0.	109.	44.	0.	0.	0.	0.	15.	171.	222.	55.76
02-17-82	430.	160.	52.	0.	0.	0.	0.	15.	143.	-195.	55.77
02-18-82	0.	67.	54.	0.	0.	0.	0.	15.	57.	56.	55.78
02-19-82	0.	185.	52.	0.	0.	0.	0.	15.	29.	147.	55.78
02-20-82	0.	118.	46.	0.	0.	0.	0.	15.	0.	57.	55.79
02-21-82	0.	168.	42.	0.	0.	0.	0.	15.	-200.	-89.	55.78
02-22-82	0.	269.	36.	0.	0.	0.	0.	15.	-342.	-125.	55.75
02-23-82	0.	202.	34.	0.	0.	0.	0.	15.	-114.	39.	55.73
02-24-82	0.	134.	30.	0.	0.	0.	0.	15.	0.	89.	55.74
02-25-82	0.	143.	28.	0.	0.	0.	0.	15.	-114.	-14.	55.73
02-26-82	0.	185.	26.	0.	0.	0.	0.	15.	-57.	87.	55.72
02-27-82	0.	67.	26.	0.	0.	0.	0.	15.	-28.	-2.	55.72
02-28-82	0.	118.	26.	0.	0.	0.	0.	15.	-114.	-37.	55.71
TOTAL:	861.	3814.	1152.	0.	0.	0.	1.	427.	-199.	1173.	

TOTAL INFLOW = 2441. ACRE-FT
TOTAL OUTFLOW = 3814. ACRE-FT
TOTAL SEEPAGE = 427. ACRE-FT
STORAGE CHANGE = -199. ACRE-FT
RESIDUE INFLOW = 1173. ACRE-FT
MEAN LAKE STAGE = 55.74 FT
MEAN LAKE AREA = 11410. ACRE
MEAN LAKE VOLUME = 97780. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
03-01-82	0.	193.	24.	0.	0.	0.	0.	16.	-85.	68.	55.70
03-02-82	84.	50.	24.	0.	0.	0.	0.	16.	-28.	-102.	55.70
03-03-82	0.	160.	24.	0.	0.	0.	0.	16.	28.	148.	55.69
03-04-82	0.	118.	24.	0.	0.	0.	0.	16.	85.	163.	55.70
03-05-82	336.	151.	30.	0.	0.	0.	0.	16.	740.	510.	55.71
03-06-82	1165.	151.	77.	0.	0.	2.	0.	16.	1060.	-50.	55.83
03-07-82	483.	84.	87.	0.	0.	3.	0.	16.	230.	-275.	55.89
03-08-82	0.	109.	97.	0.	0.	5.	0.	16.	-172.	-181.	55.87
03-09-82	0.	143.	91.	0.	0.	4.	0.	16.	0.	32.	55.86
03-10-82	0.	185.	77.	0.	0.	3.	0.	16.	143.	232.	55.87
03-11-82	0.	176.	63.	0.	0.	2.	0.	16.	115.	210.	55.89
03-12-82	10.	109.	56.	0.	0.	1.	0.	16.	-57.	-31.	55.89
03-13-82	0.	185.	50.	0.	0.	0.	0.	16.	-172.	-53.	55.88
03-14-82	0.	227.	46.	0.	0.	0.	0.	16.	-86.	79.	55.86
03-15-82	0.	160.	40.	0.	0.	0.	0.	16.	29.	133.	55.86
03-16-82	0.	185.	38.	0.	0.	0.	0.	16.	29.	160.	55.87
03-17-82	0.	151.	34.	0.	0.	0.	0.	16.	-86.	16.	55.87
03-18-82	0.	210.	30.	0.	0.	0.	0.	16.	-143.	21.	55.85
03-19-82	0.	210.	28.	0.	0.	0.	0.	16.	-115.	52.	55.84
03-20-82	0.	185.	26.	0.	0.	0.	0.	16.	-86.	57.	55.83
03-21-82	0.	227.	24.	0.	0.	0.	0.	16.	-115.	73.	55.82
03-22-82	0.	185.	22.	0.	0.	0.	0.	16.	-114.	33.	55.81
03-23-82	0.	252.	22.	0.	0.	0.	0.	16.	-57.	157.	55.80
03-24-82	451.	202.	20.	0.	0.	0.	0.	16.	515.	229.	55.80
03-25-82	504.	235.	34.	0.	0.	0.	0.	16.	431.	112.	55.90
03-26-82	21.	134.	38.	0.	0.	0.	0.	16.	-316.	-256.	55.88
03-27-82	0.	244.	40.	0.	0.	0.	0.	16.	-86.	102.	55.84
03-28-82	1113.	176.	46.	0.	0.	0.	0.	16.	688.	-310.	55.86
03-29-82	378.	143.	107.	0.	0.	1.	0.	16.	634.	274.	55.96
03-30-82	10.	101.	105.	0.	0.	0.	0.	16.	-29.	-60.	55.97
03-31-82	0.	176.	93.	0.	0.	0.	0.	16.	-144.	-77.	55.96
TOTAL:	4557.	5216.	1513.	0.	0.	21.	11.	482.	2835.	1466.	

TOTAL INFLOW = 6585. ACRE-FT
TOTAL OUTFLOW = 5216. ACRE-FT
TOTAL SEEPAGE = 482. ACRE-FT
STORAGE CHANGE = 2835. ACRE-FT
RESIDUE INFLOW = 1466. ACRE-FT
MEAN LAKE STAGE = 55.84 FT
MEAN LAKE AREA = 11459. ACRE
MEAN LAKE VOLUME = 98934. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
04-01-82	0.	210.	79.	0.	0.	0.	0.	17.	-29.	85.	55.95
04-02-82	0.	193.	63.	0.	0.	0.	0.	17.	115.	228.	55.95
04-03-82	0.	260.	54.	0.	0.	0.	0.	17.	-29.	161.	55.97
04-04-82	0.	210.	46.	0.	0.	0.	0.	17.	-58.	90.	55.95
04-05-82	0.	260.	38.	0.	0.	0.	0.	17.	0.	206.	55.96
04-06-82	0.	227.	34.	0.	0.	0.	0.	17.	-432.	-255.	55.95
04-07-82	0.	302.	28.	0.	0.	0.	0.	17.	-287.	-29.	55.88
04-08-82	10.	210.	26.	0.	0.	0.	0.	17.	460.	616.	55.90
04-09-82	1554.	92.	129.	0.	0.	6.	0.	17.	807.	-806.	55.96
04-10-82	42.	235.	355.	0.	0.	30.	0.	17.	1127.	919.	56.03
04-11-82	1039.	168.	403.	0.	0.	47.	0.	17.	814.	-525.	56.16
04-12-82	0.	176.	381.	0.	0.	33.	0.	17.	233.	-22.	56.18
04-13-82	0.	193.	345.	0.	0.	17.	0.	17.	262.	76.	56.20
04-14-82	0.	160.	300.	0.	0.	9.	0.	17.	291.	125.	56.22
04-15-82	367.	185.	276.	0.	0.	6.	0.	17.	700.	219.	56.25
04-16-82	189.	210.	371.	0.	0.	8.	0.	17.	674.	299.	56.34
04-17-82	0.	235.	363.	0.	0.	5.	0.	17.	235.	85.	56.36
04-18-82	0.	269.	305.	0.	0.	3.	0.	17.	352.	295.	56.38
04-19-82	0.	269.	246.	60.	0.	2.	0.	17.	382.	327.	56.42
04-20-82	0.	227.	198.	101.	0.	1.	0.	17.	206.	115.	56.45
04-21-82	0.	202.	157.	99.	0.	0.	0.	17.	177.	105.	56.46
04-22-82	294.	302.	129.	99.	0.	0.	0.	17.	265.	29.	56.48
04-23-82	0.	210.	121.	99.	0.	0.	0.	17.	30.	2.	56.50
04-24-82	157.	101.	103.	99.	0.	0.	0.	17.	-147.	-423.	56.48
04-25-82	10.	109.	93.	97.	0.	0.	0.	17.	265.	157.	56.48
04-26-82	346.	151.	93.	97.	200.	1.	0.	17.	0.	-203.	56.52
04-27-82	105.	76.	85.	97.	464.	2.	0.	17.	-501.	-268.	56.48
04-28-82	0.	269.	73.	97.	464.	4.	0.	17.	-500.	41.	56.44
04-29-82	441.	210.	67.	97.	464.	4.	0.	17.	-587.	-540.	56.39
04-30-82	63.	227.	73.	99.	464.	10.	0.	17.	-645.	-216.	56.34
TOTAL:	4620.	6149.	5034.	1142.	2057.	190.	8.	496.	4179.	894.	

TOTAL INFLOW = 11491. ACRE-FT
TOTAL OUTFLOW = 8206. ACRE-FT
TOTAL SEEPAGE = 496. ACRE-FT
STORAGE CHANGE = 4179. ACRE-FT
RESIDUE INFLOW = 894. ACRE-FT
MEAN LAKE STAGE = 56.23 FT
MEAN LAKE AREA = 11663. ACRE
MEAN LAKE VOLUME = 103679. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
05-01-82	10.	277.	85.	99.	464.	10.	0.	15.	-497.	24.	56.28
05-02-82	21.	244.	85.	99.	464.	13.	0.	15.	-263.	211.	56.25
05-03-82	10.	185.	81.	99.	464.	4.	0.	15.	-379.	59.	56.24
05-04-82	0.	202.	75.	99.	462.	0.	0.	15.	-524.	-51.	56.19
05-05-82	0.	269.	65.	99.	462.	0.	0.	15.	-494.	57.	56.15
05-06-82	0.	260.	63.	99.	460.	0.	0.	15.	-493.	49.	56.11
05-07-82	0.	294.	58.	99.	458.	0.	0.	15.	-434.	146.	56.06
05-08-82	0.	193.	54.	99.	456.	0.	0.	15.	-433.	48.	56.03
05-09-82	0.	193.	48.	99.	458.	0.	0.	15.	-663.	-174.	55.99
05-10-82	0.	252.	42.	54.	458.	0.	0.	15.	-805.	-206.	55.92
05-11-82	0.	311.	36.	0.	456.	0.	0.	15.	-544.	171.	55.85
05-12-82	0.	286.	32.	0.	454.	0.	0.	15.	-630.	63.	55.82
05-13-82	0.	244.	30.	0.	454.	0.	0.	15.	-627.	25.	55.74
05-14-82	0.	328.	26.	0.	464.	0.	0.	15.	-285.	465.	55.71
05-15-82	0.	235.	24.	0.	357.	0.	0.	15.	-455.	97.	55.69
05-16-82	0.	286.	22.	0.	325.	0.	0.	15.	-568.	6.	55.63
05-17-82	0.	294.	22.	0.	325.	0.	0.	15.	-538.	44.	55.58
05-18-82	0.	252.	18.	0.	325.	0.	0.	15.	-367.	176.	55.53
05-19-82	0.	277.	16.	0.	323.	0.	0.	15.	-169.	399.	55.52
05-20-82	0.	286.	16.	0.	179.	0.	0.	15.	-113.	320.	55.50
05-21-82	577.	286.	18.	0.	71.	0.	0.	15.	141.	-113.	55.50
05-22-82	598.	134.	28.	0.	71.	0.	0.	15.	141.	-295.	55.53
05-23-82	147.	344.	32.	0.	71.	0.	0.	15.	-198.	24.	55.52
05-24-82	94.	76.	42.	147.	472.	0.	0.	15.	-254.	-5.	55.50
05-25-82	661.	185.	61.	438.	1033.	1.	0.	15.	254.	294.	55.48
05-26-82	504.	235.	69.	573.	1184.	1.	0.	15.	141.	397.	55.54
05-27-82	651.	143.	75.	565.	1156.	1.	0.	15.	-282.	-292.	55.50
05-28-82	357.	143.	81.	561.	1158.	1.	0.	15.	-395.	-110.	55.49
05-29-82	0.	294.	73.	553.	1156.	0.	0.	15.	-478.	329.	55.44
05-30-82	252.	176.	77.	543.	1162.	1.	0.	15.	759.	1208.	55.41
05-31-82	252.	134.	258.	540.	1170.	53.	0.	15.	1161.	1347.	55.57
TOTAL:	4137.	7316.	1712.	4867.	16979.	86.	8.	479.	-8292.	4714.	

TOTAL INFLOW = 11289. ACRE-FT
TOTAL OUTFLOW = 24295. ACRE-FT
TOTAL SEEPAGE = 479. ACRE-FT
STORAGE CHANGE = -8292. ACRE-FT
RESIDUE INFLOW = 4714. ACRE-FT
MEAN LAKE STAGE = 55.75 FT
MEAN LAKE AREA = 11414. ACRE
MEAN LAKE VOLUME = 97863. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
06-01-82	913.	84.	419.	240.	512.	100.	0.	16.	142.	-951.	55.61
06-02-82	367.	252.	399.	0.	0.	60.	0.	16.	510.	-80.	55.59
06-03-82	315.	84.	369.	0.	0.	41.	0.	16.	712.	55.	55.70
06-04-82	0.	151.	347.	0.	0.	25.	0.	16.	313.	76.	55.72
06-05-82	147.	244.	303.	0.	0.	16.	0.	16.	285.	47.	55.75
06-06-82	0.	202.	268.	0.	0.	10.	0.	16.	543.	450.	55.77
06-07-82	0.	294.	260.	157.	0.	6.	0.	16.	745.	600.	55.85
06-08-82	0.	319.	234.	270.	0.	3.	0.	16.	115.	-90.	55.90
06-09-82	0.	269.	196.	121.	0.	2.	0.	16.	-488.	-555.	55.87
06-10-82	0.	160.	159.	0.	0.	1.	0.	16.	-258.	-274.	55.81
06-11-82	0.	252.	137.	0.	0.	0.	0.	16.	57.	156.	55.82
06-12-82	294.	210.	115.	0.	0.	0.	0.	16.	229.	13.	55.82
06-13-82	210.	109.	113.	0.	0.	0.	0.	16.	229.	-1.	55.87
06-14-82	0.	160.	103.	0.	0.	0.	0.	16.	57.	97.	55.87
06-15-82	21.	269.	93.	40.	0.	0.	0.	16.	115.	213.	55.88
06-16-82	672.	260.	87.	69.	0.	0.	0.	16.	287.	-298.	55.89
06-17-82	409.	160.	91.	69.	0.	0.	0.	16.	5062.	4634.	55.93
06-18-82	5859.	176.	577.	536.	149.	247.	0.	16.	9139.	2228.	56.76
06-19-82	0.	185.	1033.	1016.	329.	278.	0.	16.	5613.	3783.	57.46
06-20-82	2950.	227.	1069.	1043.	331.	116.	0.	16.	2057.	-2580.	57.68
06-21-82	430.	160.	950.	1047.	748.	68.	0.	16.	188.	-1417.	57.79
06-22-82	157.	134.	758.	1045.	1295.	41.	0.	16.	-749.	-1338.	57.71
06-23-82	105.	227.	643.	1025.	1293.	26.	0.	16.	-312.	-607.	57.67
06-24-82	168.	252.	543.	1008.	1158.	18.	0.	16.	-93.	-437.	57.66
06-25-82	105.	101.	444.	976.	1150.	13.	0.	16.	0.	-303.	57.65
06-26-82	179.	92.	363.	946.	1190.	9.	0.	16.	-31.	-262.	57.66
06-27-82	179.	210.	307.	916.	1180.	9.	0.	16.	-156.	-193.	57.65
06-28-82	179.	218.	254.	865.	1083.	11.	0.	16.	-1368.	-1392.	57.63
06-29-82	105.	286.	208.	633.	1131.	6.	0.	16.	-2741.	-2293.	57.43
06-30-82	105.	294.	171.	484.	1133.	4.	0.	16.	-2253.	-1606.	57.19
TOTAL:	13870.	6040.	11014.	12506.	12682.	1113.	10.	482.	17950.	-2323.	

TOTAL INFLOW = 38995. ACRE-FT
TOTAL OUTFLOW = 18722. ACRE-FT
TOTAL SEEPAGE = 482. ACRE-FT
STORAGE CHANGE = 17950. ACRE-FT
RESIDUE INFLOW = -2323. ACRE-FT
MEAN LAKE STAGE = 56.55 FT
MEAN LAKE AREA = 11831. ACRE
MEAN LAKE VOLUME = 107590. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
07-01-82	73.	277.	141.	490.	1065.	2.	1.	17.	-1271.	-654.	57.05
07-02-82	73.	252.	153.	492.	1047.	2.	1.	17.	-754.	-193.	56.98
07-03-82	73.	143.	240.	494.	1029.	2.	1.	17.	-361.	-17.	56.93
07-04-82	73.	176.	266.	490.	972.	2.	1.	17.	-421.	-123.	56.92
07-05-82	73.	185.	210.	488.	954.	5.	1.	17.	-870.	-526.	56.86
07-06-82	116.	185.	169.	202.	1091.	9.	1.	17.	-1225.	-463.	56.77
07-07-82	199.	160.	145.	0.	1380.	10.	1.	17.	-1159.	9.	56.66
07-08-82	777.	143.	133.	169.	1190.	5.	1.	17.	-592.	-361.	56.58
07-09-82	284.	143.	123.	296.	902.	4.	1.	17.	-385.	-63.	56.56
07-10-82	284.	244.	107.	298.	843.	3.	1.	17.	-384.	-7.	56.51
07-11-82	284.	227.	93.	300.	837.	2.	1.	17.	-678.	-312.	56.49
07-12-82	284.	286.	81.	305.	819.	2.	1.	17.	-617.	-203.	56.40
07-13-82	0.	277.	71.	307.	980.	2.	1.	17.	59.	917.	56.39
07-14-82	0.	227.	69.	151.	748.	1.	1.	17.	470.	1205.	56.41
07-15-82	0.	260.	65.	0.	135.	2.	1.	17.	501.	811.	56.47
07-16-82	157.	227.	65.	0.	0.	3.	1.	17.	383.	366.	56.49
07-17-82	0.	134.	65.	0.	0.	4.	1.	17.	502.	549.	56.53
07-18-82	0.	193.	63.	0.	0.	3.	1.	17.	385.	493.	56.57
07-19-82	367.	218.	60.	165.	179.	2.	1.	17.	741.	526.	56.60
07-20-82	1228.	227.	113.	466.	494.	2.	1.	17.	1459.	352.	56.70
07-21-82	147.	546.	254.	583.	631.	3.	1.	17.	899.	1070.	56.84
07-22-82	231.	185.	200.	573.	633.	2.	1.	17.	-390.	-597.	56.85
07-23-82	84.	344.	180.	419.	716.	18.	1.	17.	-508.	-167.	56.77
07-24-82	10.	235.	250.	301.	778.	96.	1.	17.	-209.	127.	56.76
07-25-82	1428.	210.	317.	307.	783.	96.	1.	17.	507.	-667.	56.74
07-26-82	955.	193.	522.	571.	1099.	143.	1.	17.	1499.	581.	56.85
07-27-82	147.	218.	575.	762.	1117.	83.	1.	17.	845.	595.	56.99
07-28-82	116.	294.	541.	746.	914.	43.	1.	17.	-604.	-859.	56.99
07-29-82	0.	151.	422.	619.	918.	24.	1.	17.	-1201.	-1216.	56.89
07-30-82	52.	176.	321.	545.	877.	16.	1.	17.	-927.	-827.	56.79
07-31-82	0.	218.	252.	545.	908.	10.	1.	17.	-686.	-385.	56.74
TOTAL:	7518.	6955.	6270.	11084.	24040.	602.	28.	541.	-4990.	-37.	

TOTAL INFLOW = 26042. ACRE-FT
TOTAL OUTFLOW = 30995. ACRE-FT
TOTAL SEEPAGE = 541. ACRE-FT
STORAGE CHANGE = -4990. ACRE-FT
RESIDUE INFLOW = -37. ACRE-FT
MEAN LAKE STAGE = 56.71 FT
MEAN LAKE AREA = 11917. ACRE
MEAN LAKE VOLUME = 109562. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
08-01-82	0.	235.	210.	545.	893.	7.	2.	17.	-714.	-368.	56.68
08-02-82	210.	218.	177.	399.	1053.	5.	2.	17.	-1009.	-547.	56.62
08-03-82	157.	168.	163.	292.	1144.	4.	2.	17.	-915.	-238.	56.50
08-04-82	588.	294.	161.	294.	1139.	3.	2.	17.	0.	368.	56.46
08-05-82	0.	202.	133.	123.	625.	2.	2.	17.	620.	1169.	56.50
08-06-82	304.	126.	129.	0.	323.	2.	2.	17.	385.	380.	56.56
08-07-82	0.	185.	135.	0.	321.	1.	2.	17.	-89.	262.	56.57
08-08-82	0.	176.	113.	0.	321.	1.	2.	17.	-325.	39.	56.55
08-09-82	189.	235.	97.	0.	321.	1.	2.	17.	59.	309.	56.51
08-10-82	157.	277.	113.	0.	137.	3.	2.	17.	799.	920.	56.56
08-11-82	241.	227.	173.	0.	0.	8.	2.	17.	683.	469.	56.65
08-12-82	472.	126.	153.	0.	200.	6.	2.	17.	-59.	-384.	56.68
08-13-82	0.	235.	135.	0.	323.	5.	2.	17.	-178.	222.	56.64
08-14-82	94.	218.	131.	0.	325.	3.	2.	17.	267.	563.	56.65
08-15-82	52.	151.	139.	0.	325.	3.	2.	17.	565.	828.	56.69
08-16-82	21.	168.	151.	240.	504.	9.	2.	17.	1223.	1455.	56.74
08-17-82	788.	210.	177.	438.	645.	16.	2.	17.	1892.	1310.	56.89
08-18-82	430.	361.	163.	631.	649.	23.	2.	17.	908.	652.	57.06
08-19-82	21.	227.	145.	543.	772.	28.	2.	17.	-1754.	-1512.	57.04
08-20-82	766.	101.	145.	296.	926.	23.	2.	17.	-687.	-909.	56.76
08-21-82	840.	202.	264.	292.	932.	27.	2.	17.	1414.	1106.	56.93
08-22-82	315.	176.	309.	290.	940.	22.	2.	17.	785.	947.	57.00
08-23-82	0.	202.	282.	502.	1206.	18.	2.	17.	1090.	1676.	57.06
08-24-82	42.	210.	258.	740.	1527.	15.	2.	17.	639.	1302.	57.18
08-25-82	21.	235.	238.	728.	1533.	12.	2.	17.	-1429.	-679.	57.16
08-26-82	556.	277.	210.	389.	1537.	9.	2.	17.	-2861.	-2230.	56.95
08-27-82	0.	193.	165.	145.	1527.	7.	2.	17.	-2023.	-638.	56.69
08-28-82	0.	218.	159.	149.	1517.	5.	2.	17.	-860.	544.	56.61
08-29-82	52.	193.	159.	151.	1505.	4.	2.	17.	-1212.	101.	56.54
08-30-82	31.	218.	161.	153.	1468.	4.	2.	17.	-1263.	55.	56.40
08-31-82	0.	269.	137.	155.	1436.	3.	2.	17.	-264.	1128.	56.33
TOTAL:	6352.	6535.	5280.	7492.	26077.	278.	55.	542.	-4313.	8299.	

TOTAL INFLOW = 20000. ACRE-FT
TOTAL OUTFLOW = 32612. ACRE-FT
TOTAL SEEPAGE = 542. ACRE-FT
STORAGE CHANGE = -4313. ACRE-FT
RESIDUE INFLOW = 8299. ACRE-FT
MEAN LAKE STAGE = 56.71 FT
MEAN LAKE AREA = 11918. ACRE
MEAN LAKE VOLUME = 109594. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
09-01-82	0.	118.	121.	155.	1137.	2.	0.	17.	1055.	2014.	56.36
09-02-82	0.	185.	99.	157.	333.	2.	0.	17.	1328.	1572.	56.50
09-03-82	0.	210.	83.	155.	0.	1.	0.	17.	474.	428.	56.58
09-04-82	157.	227.	71.	155.	0.	1.	0.	17.	148.	-27.	56.58
09-05-82	871.	210.	71.	155.	0.	1.	0.	17.	356.	-550.	56.60
09-06-82	367.	311.	103.	155.	0.	1.	0.	17.	386.	53.	56.65
09-07-82	179.	126.	97.	153.	0.	1.	0.	17.	327.	7.	56.67
09-08-82	294.	210.	93.	153.	0.	1.	0.	17.	238.	-110.	56.70
09-09-82	252.	134.	123.	153.	0.	4.	0.	17.	357.	-57.	56.71
09-10-82	808.	185.	214.	153.	0.	17.	0.	17.	836.	-189.	56.76
09-11-82	105.	168.	242.	153.	0.	25.	0.	17.	839.	466.	56.85
09-12-82	105.	193.	236.	155.	0.	22.	0.	17.	270.	-72.	56.90
09-13-82	105.	143.	204.	224.	351.	16.	0.	17.	-330.	-403.	56.90
09-14-82	0.	311.	169.	305.	639.	12.	0.	17.	-360.	87.	56.85
09-15-82	0.	134.	141.	303.	639.	8.	0.	17.	-120.	184.	56.84
09-16-82	0.	286.	119.	301.	639.	5.	0.	17.	240.	721.	56.83
09-17-82	0.	185.	103.	301.	258.	4.	0.	17.	600.	617.	56.88
09-18-82	0.	235.	89.	300.	0.	3.	0.	17.	361.	188.	56.93
09-19-82	0.	168.	77.	294.	0.	2.	0.	17.	60.	-162.	56.94
09-20-82	409.	176.	71.	117.	0.	4.	0.	17.	1023.	580.	56.94
09-21-82	346.	185.	169.	0.	0.	60.	0.	17.	1759.	1352.	57.11
09-22-82	514.	17.	244.	303.	484.	31.	0.	17.	1068.	458.	57.23
09-23-82	116.	34.	311.	543.	928.	31.	0.	17.	-153.	-210.	57.28
09-24-82	31.	118.	319.	296.	760.	31.	0.	17.	-884.	-701.	57.20
09-25-82	31.	109.	290.	145.	645.	31.	0.	17.	243.	483.	57.14
09-26-82	1911.	126.	442.	147.	641.	31.	0.	17.	1984.	203.	57.24
09-27-82	0.	134.	565.	512.	972.	31.	0.	17.	2869.	2850.	57.46
09-28-82	0.	168.	518.	827.	1369.	31.	0.	17.	1373.	1517.	57.71
09-29-82	0.	218.	464.	805.	1246.	31.	0.	17.	-904.	-758.	57.68
09-30-82	168.	202.	391.	647.	1337.	31.	0.	17.	-2201.	-1916.	57.56
TOTAL:	6772.	5225.	6242.	8219.	12375.	469.	12.	507.	13246.	8624.	

TOTAL INFLOW = 22222. ACRE-FT
TOTAL OUTFLOW = 17600. ACRE-FT
TOTAL SEEPAGE = 507. ACRE-FT
STORAGE CHANGE = 13246. ACRE-FT
RESIDUE INFLOW = 8624. ACRE-FT
MEAN LAKE STAGE = 56.95 FT
MEAN LAKE AREA = 12048. ACRE
MEAN LAKE VOLUME = 112545. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
10-01-82	147.	176.	375.	393.	1089.	31.	1.	17.	-2145.	-1843.	57.32
10-02-82	0.	151.	359.	276.	847.	31.	1.	17.	-701.	-386.	57.21
10-03-82	0.	193.	335.	280.	857.	31.	1.	17.	0.	387.	57.21
10-04-82	0.	92.	296.	280.	863.	31.	1.	17.	-396.	-65.	57.21
10-05-82	241.	185.	260.	282.	514.	20.	1.	17.	-942.	-1064.	57.15
10-06-82	294.	210.	238.	133.	127.	35.	1.	17.	-817.	-1198.	57.05
10-07-82	21.	235.	224.	0.	0.	32.	1.	17.	-272.	-331.	57.01
10-08-82	0.	151.	196.	0.	0.	15.	1.	17.	-60.	-138.	57.01
10-09-82	0.	185.	165.	0.	0.	6.	1.	17.	0.	-4.	57.00
10-10-82	94.	168.	141.	0.	0.	5.	1.	17.	91.	0.	57.01
10-11-82	168.	168.	123.	0.	0.	7.	1.	17.	0.	-148.	57.02
10-12-82	0.	210.	109.	0.	0.	7.	1.	17.	60.	136.	57.01
10-13-82	0.	202.	105.	0.	0.	6.	1.	17.	332.	405.	57.03
10-14-82	0.	160.	101.	159.	0.	6.	1.	17.	333.	210.	57.07
10-15-82	0.	84.	91.	296.	0.	5.	1.	17.	121.	-204.	57.08
10-16-82	0.	218.	83.	294.	0.	4.	1.	17.	-152.	-331.	57.09
10-17-82	0.	34.	75.	292.	0.	3.	1.	17.	-393.	-748.	57.05
10-18-82	0.	134.	69.	230.	0.	3.	1.	17.	-332.	-518.	57.02
10-19-82	0.	151.	63.	61.	0.	2.	1.	17.	60.	67.	57.00
10-20-82	0.	185.	58.	0.	0.	2.	1.	17.	181.	289.	57.03
10-21-82	0.	143.	56.	0.	0.	2.	1.	17.	0.	68.	57.03
10-22-82	42.	160.	56.	0.	0.	1.	1.	17.	-121.	-78.	57.03
10-23-82	31.	160.	56.	0.	0.	1.	1.	17.	-30.	23.	57.01
10-24-82	0.	50.	56.	0.	0.	1.	1.	17.	212.	188.	57.02
10-25-82	0.	67.	56.	0.	0.	1.	1.	17.	151.	144.	57.05
10-26-82	0.	118.	56.	0.	0.	1.	1.	17.	-121.	-78.	57.05
10-27-82	0.	118.	56.	0.	0.	1.	1.	17.	-60.	-17.	57.03
10-28-82	0.	134.	56.	0.	0.	1.	1.	17.	2359.	2420.	57.04
10-29-82	0.	151.	56.	0.	0.	1.	1.	17.	3909.	3986.	57.42
10-30-82	0.	143.	56.	0.	0.	1.	1.	17.	1683.	1752.	57.68
10-31-82	10.	109.	56.	0.	0.	1.	1.	17.	62.	87.	57.69
TOTAL:	1050.	4645.	4078.	2973.	4296.	294.	18.	524.	3011.	3014.	

TOTAL INFLOW = 8938. ACRE-FT
TOTAL OUTFLOW = 8941. ACRE-FT
TOTAL SEEPAGE = 524. ACRE-FT
STORAGE CHANGE = 3011. ACRE-FT
RESIDUE INFLOW = 3014. ACRE-FT
MEAN LAKE STAGE = 57.12 FT
MEAN LAKE AREA = 12141. ACRE
MEAN LAKE VOLUME = 114616. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
11-01-82	0.	42.	56.	0.	0.	1.	1.	15.	62.	32.	57.69
11-02-82	147.	101.	56.	0.	0.	1.	1.	15.	250.	131.	57.70
11-03-82	367.	101.	56.	0.	0.	1.	1.	15.	219.	-121.	57.73
11-04-82	42.	59.	56.	0.	0.	1.	1.	15.	-62.	-118.	57.73
11-05-82	535.	67.	56.	0.	0.	1.	1.	15.	-343.	-884.	57.72
11-06-82	0.	126.	50.	0.	0.	1.	1.	15.	-343.	-283.	57.68
11-07-82	0.	8.	44.	0.	0.	0.	1.	15.	-62.	-114.	57.66
11-08-82	0.	227.	38.	0.	0.	0.	1.	15.	0.	173.	57.67
11-09-82	0.	109.	32.	0.	0.	0.	1.	15.	0.	61.	57.66
11-10-82	0.	126.	32.	0.	0.	0.	1.	15.	-62.	16.	57.67
11-11-82	0.	134.	30.	0.	0.	0.	1.	15.	31.	119.	57.65
11-12-82	0.	151.	28.	0.	0.	0.	1.	15.	93.	200.	57.67
11-13-82	52.	126.	30.	0.	0.	0.	1.	15.	-93.	-66.	57.67
11-14-82	0.	118.	28.	0.	0.	0.	1.	15.	-62.	11.	57.66
11-15-82	0.	92.	26.	0.	0.	0.	1.	15.	-125.	-74.	57.66
11-16-82	0.	76.	26.	0.	0.	0.	1.	15.	-62.	-29.	57.64
11-17-82	31.	84.	24.	0.	0.	0.	1.	15.	62.	75.	57.65
11-18-82	0.	126.	24.	0.	0.	0.	1.	15.	-31.	55.	57.65
11-19-82	0.	118.	24.	0.	0.	0.	1.	15.	-93.	-16.	57.64
11-20-82	0.	126.	24.	0.	0.	0.	1.	15.	-62.	24.	57.63
11-21-82	0.	109.	22.	0.	0.	0.	1.	15.	0.	71.	57.63
11-22-82	0.	134.	22.	0.	0.	0.	1.	15.	0.	96.	57.63
11-23-82	0.	118.	22.	0.	0.	0.	1.	15.	31.	110.	57.63
11-24-82	0.	109.	20.	0.	0.	0.	1.	15.	31.	104.	57.64
11-25-82	0.	109.	20.	0.	0.	0.	1.	15.	31.	104.	57.64
11-26-82	0.	134.	20.	0.	0.	0.	1.	15.	31.	129.	57.64
11-27-82	0.	109.	22.	0.	0.	0.	1.	15.	31.	102.	57.64
11-28-82	0.	176.	22.	0.	0.	0.	1.	15.	93.	232.	57.65
11-29-82	0.	67.	20.	0.	0.	0.	1.	15.	-156.	-125.	57.66
11-30-82	0.	160.	20.	0.	0.	0.	1.	15.	-186.	-63.	57.62
TOTAL:	1176.	3343.	942.	0.	0.	11.	36.	447.	-778.	-48.	

TOTAL INFLOW = 2613. ACRE-FT
TOTAL OUTFLOW = 3343. ACRE-FT
TOTAL SEEPAGE = 447. ACRE-FT
STORAGE CHANGE = -778. ACRE-FT
RESIDUE INFLOW = -48. ACRE-FT
MEAN LAKE STAGE = 57.66 FT
MEAN LAKE AREA = 12456. ACRE
MEAN LAKE VOLUME = 121482. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
12-01-82	10.	92.	20.	0.	0.	0.	0.	14.	0.	47.	57.63
12-02-82	0.	84.	20.	0.	0.	0.	0.	14.	-93.	-44.	57.62
12-03-82	0.	160.	20.	0.	0.	0.	0.	14.	-93.	32.	57.61
12-04-82	0.	160.	20.	0.	0.	0.	0.	14.	-93.	32.	57.60
12-05-82	0.	176.	20.	0.	0.	0.	0.	14.	-62.	80.	57.59
12-06-82	0.	126.	20.	0.	0.	0.	0.	14.	-31.	60.	57.59
12-07-82	126.	101.	20.	0.	0.	0.	0.	14.	0.	-60.	57.59
12-08-82	105.	101.	24.	0.	0.	0.	0.	14.	62.	19.	57.59
12-09-82	0.	101.	24.	65.	0.	0.	0.	14.	186.	183.	57.60
12-10-82	294.	84.	22.	157.	0.	0.	0.	14.	280.	-124.	57.63
12-11-82	0.	67.	22.	155.	0.	0.	0.	14.	311.	187.	57.65
12-12-82	556.	118.	24.	153.	0.	0.	0.	14.	0.	-630.	57.68
12-13-82	0.	84.	24.	155.	0.	0.	0.	14.	-249.	-358.	57.65
12-14-82	0.	101.	24.	153.	0.	0.	0.	14.	62.	-28.	57.64
12-15-82	0.	59.	28.	151.	0.	0.	0.	14.	249.	115.	57.66
12-16-82	42.	134.	38.	58.	0.	0.	0.	14.	93.	76.	57.68
12-17-82	157.	34.	38.	0.	0.	0.	0.	14.	-187.	-363.	57.67
12-18-82	0.	109.	32.	0.	0.	0.	0.	14.	-93.	-31.	57.65
12-19-82	0.	59.	28.	0.	0.	0.	0.	14.	31.	47.	57.66
12-20-82	0.	76.	26.	0.	0.	0.	0.	14.	-31.	4.	57.65
12-21-82	0.	109.	22.	0.	0.	0.	0.	14.	-62.	10.	57.65
12-22-82	0.	92.	22.	0.	0.	0.	0.	14.	-156.	-100.	57.64
12-23-82	0.	109.	20.	0.	0.	0.	0.	14.	-155.	-81.	57.63
12-24-82	0.	76.	20.	0.	0.	0.	0.	14.	-93.	-52.	57.62
12-25-82	0.	126.	20.	0.	0.	0.	0.	14.	-31.	60.	57.61
12-26-82	0.	126.	20.	0.	0.	0.	0.	14.	-31.	60.	57.61
12-27-82	0.	134.	18.	0.	0.	0.	0.	14.	-62.	40.	57.61
12-28-82	0.	76.	18.	0.	0.	0.	0.	14.	-62.	-19.	57.60
12-29-82	0.	118.	18.	0.	0.	0.	0.	14.	248.	333.	57.60
12-30-82	0.	76.	18.	0.	0.	0.	0.	14.	249.	292.	57.64
12-31-82	0.	84.	16.	0.	0.	0.	0.	14.	-31.	22.	57.64
TOTAL:	1291.	3150.	700.	1045.	0.	5.	9.	444.	155.	-189.	

TOTAL INFLOW = 3495. ACRE-FT
TOTAL OUTFLOW = 3150. ACRE-FT
TOTAL SEEPAGE = 444. ACRE-FT
STORAGE CHANGE = 155. ACRE-FT
RESIDUE INFLOW = -189. ACRE-FT
MEAN LAKE STAGE = 57.63 FT
MEAN LAKE AREA = 12437. ACRE
MEAN LAKE VOLUME = 121091. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
01-01-83	0.	50.	16.	0.	0.	0.	0.	14.	31.	52.	57.64
01-02-83	0.	67.	16.	0.	0.	0.	0.	14.	0.	38.	57.64
01-03-83	0.	76.	16.	0.	0.	0.	0.	14.	-156.	-110.	57.64
01-04-83	0.	67.	18.	0.	0.	0.	0.	14.	-62.	-27.	57.62
01-05-83	0.	84.	24.	0.	0.	0.	0.	14.	-62.	-16.	57.63
01-06-83	10.	17.	26.	0.	0.	0.	0.	14.	-124.	-158.	57.61
01-07-83	0.	84.	26.	0.	0.	0.	0.	14.	-124.	-80.	57.61
01-08-83	0.	34.	24.	0.	0.	0.	0.	14.	-62.	-66.	57.59
01-09-83	0.	101.	22.	0.	0.	0.	0.	14.	93.	158.	57.60
01-10-83	0.	76.	20.	0.	0.	0.	0.	14.	124.	166.	57.60
01-11-83	31.	50.	20.	0.	0.	0.	0.	14.	31.	16.	57.62
01-12-83	0.	84.	18.	0.	0.	0.	0.	14.	-311.	-258.	57.61
01-13-83	0.	126.	16.	0.	0.	0.	0.	14.	-341.	-245.	57.56
01-14-83	0.	84.	14.	0.	0.	0.	0.	14.	-62.	-6.	57.55
01-15-83	0.	67.	14.	0.	0.	0.	0.	14.	0.	39.	57.55
01-16-83	0.	143.	14.	0.	0.	0.	0.	14.	-93.	22.	57.55
01-17-83	0.	84.	12.	0.	0.	0.	0.	14.	-155.	-97.	57.54
01-18-83	0.	109.	12.	0.	0.	0.	0.	14.	-217.	-133.	57.52
01-19-83	0.	160.	12.	0.	0.	0.	0.	14.	216.	350.	57.50
01-20-83	105.	42.	36.	0.	0.	1.	0.	14.	1271.	1158.	57.56
01-21-83	976.	8.	56.	220.	0.	1.	0.	14.	1592.	334.	57.71
01-22-83	31.	50.	61.	454.	0.	1.	0.	14.	910.	399.	57.82
01-23-83	31.	67.	63.	444.	0.	1.	0.	14.	94.	-392.	57.86
01-24-83	31.	42.	56.	270.	0.	1.	0.	14.	-314.	-643.	57.83
01-25-83	0.	67.	46.	149.	0.	0.	0.	14.	-94.	-235.	57.80
01-26-83	0.	67.	40.	149.	0.	0.	0.	14.	220.	84.	57.81
01-27-83	10.	101.	36.	147.	0.	0.	0.	14.	188.	82.	57.84
01-28-83	105.	59.	36.	61.	0.	0.	0.	14.	94.	-63.	57.84
01-29-83	0.	84.	159.	0.	0.	0.	0.	14.	31.	-57.	57.86
01-30-83	0.	67.	198.	0.	0.	0.	0.	14.	-126.	-271.	57.85
01-31-83	0.	92.	317.	0.	0.	0.	0.	14.	-94.	-333.	57.83
TOTAL:	1333.	2310.	1440.	1894.	0.	7.	0.	426.	2501.	-290.	

TOTAL INFLOW = 5101. ACRE-FT
TOTAL OUTFLOW = 2310. ACRE-FT
TOTAL SEEPAGE = 426. ACRE-FT
STORAGE CHANGE = 2501. ACRE-FT
RESIDUE INFLOW = -290. ACRE-FT
MEAN LAKE STAGE = 57.67 FT
MEAN LAKE AREA = 12463. ACRE
MEAN LAKE VOLUME = 121640. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
02-01-83	0.	101.	26.	0.	0.	0.	0.	15.	1194.	1253.	57.83
02-02-83	724.	244.	97.	0.	2.	7.	0.	15.	2092.	1493.	58.02
02-03-83	1533.	227.	151.	300.	294.	5.	0.	15.	1086.	-398.	58.17
02-04-83	0.	210.	151.	561.	666.	3.	0.	15.	160.	305.	58.20
02-05-83	0.	101.	119.	553.	666.	2.	0.	15.	64.	140.	58.19
02-06-83	672.	134.	111.	543.	666.	4.	0.	15.	-224.	-770.	58.21
02-07-83	126.	151.	147.	389.	659.	9.	0.	15.	-638.	-515.	58.16
02-08-83	0.	160.	155.	282.	662.	7.	0.	15.	-318.	45.	58.11
02-09-83	0.	109.	143.	282.	662.	6.	0.	15.	32.	357.	58.11
02-10-83	210.	101.	157.	282.	662.	9.	0.	15.	-64.	27.	58.11
02-11-83	147.	134.	163.	284.	730.	9.	0.	15.	-191.	55.	58.10
02-12-83	871.	160.	177.	284.	823.	20.	0.	15.	763.	379.	58.08
02-13-83	955.	160.	456.	284.	795.	93.	0.	15.	3585.	2736.	58.22
02-14-83	0.	151.	647.	670.	1434.	78.	0.	15.	3075.	3249.	58.64
02-15-83	0.	151.	605.	908.	2152.	47.	0.	15.	426.	1153.	58.69
02-16-83	546.	118.	605.	885.	2354.	65.	0.	15.	722.	1078.	58.71
02-17-83	472.	25.	660.	869.	2461.	63.	0.	15.	924.	1330.	58.79
02-18-83	0.	134.	615.	819.	2471.	19.	0.	15.	298.	1435.	58.85
02-19-83	0.	143.	536.	789.	2458.	16.	0.	15.	-99.	1144.	58.84
02-20-83	0.	92.	428.	752.	2446.	13.	0.	15.	-198.	1131.	58.83
02-21-83	10.	160.	331.	700.	2406.	10.	0.	15.	-1882.	-384.	58.81
02-22-83	116.	84.	282.	444.	2269.	8.	0.	15.	-3744.	-2256.	58.54
02-23-83	105.	67.	264.	105.	2114.	8.	0.	15.	-2948.	-1264.	58.24
02-24-83	0.	185.	238.	0.	1922.	7.	0.	15.	-1526.	320.	58.08
02-25-83	0.	168.	206.	0.	1117.	6.	0.	15.	-1488.	-431.	58.00
02-26-83	0.	193.	167.	0.	0.	5.	0.	15.	-1603.	-1597.	57.85
02-27-83	525.	118.	159.	0.	0.	4.	0.	15.	-657.	-1243.	57.74
02-28-83	210.	17.	177.	0.	887.	5.	0.	15.	188.	684.	57.75
TOTAL:	7224.	3797.	7970.	10984.	33780.	528.	10.	433.	-972.	9457.	

TOTAL INFLOW = 27149. ACRE-FT
TOTAL OUTFLOW = 37577. ACRE-FT
TOTAL SEEPAGE = 433. ACRE-FT
STORAGE CHANGE = -972. ACRE-FT
RESIDUE INFLOW = 9457. ACRE-FT
MEAN LAKE STAGE = 58.28 FT
MEAN LAKE AREA = 12845. ACRE
MEAN LAKE VOLUME = 129526. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
03-01-83	126.	59.	175.	179.	1597.	5.	0.	16.	501.	1656.	57.77
03-02-83	0.	67.	151.	387.	1505.	4.	0.	16.	753.	1768.	57.83
03-03-83	0.	118.	127.	456.	700.	3.	0.	16.	693.	908.	57.89
03-04-83	0.	126.	111.	454.	123.	3.	0.	16.	600.	264.	57.94
03-05-83	0.	168.	101.	448.	0.	3.	0.	16.	538.	138.	57.99
03-06-83	0.	126.	93.	442.	0.	2.	0.	16.	507.	79.	58.02
03-07-83	493.	92.	101.	440.	0.	3.	0.	16.	921.	-40.	58.07
03-08-83	241.	118.	129.	573.	177.	4.	0.	16.	1181.	512.	58.17
03-09-83	0.	76.	139.	666.	317.	4.	0.	16.	64.	-368.	58.25
03-10-83	31.	168.	133.	438.	315.	4.	0.	16.	-1150.	-1289.	58.18
03-11-83	10.	176.	117.	282.	212.	3.	0.	16.	-731.	-771.	58.07
03-12-83	0.	118.	105.	284.	143.	3.	0.	16.	-95.	-243.	58.06
03-13-83	0.	101.	93.	284.	143.	2.	0.	16.	-191.	-342.	58.06
03-14-83	0.	84.	83.	286.	252.	2.	0.	16.	-95.	-146.	58.03
03-15-83	430.	92.	97.	288.	532.	3.	0.	16.	730.	520.	58.04
03-16-83	556.	0.	149.	446.	855.	4.	0.	16.	1882.	1565.	58.15
03-17-83	179.	202.	258.	664.	1269.	8.	0.	16.	2190.	2536.	58.34
03-18-83	147.	126.	290.	726.	1515.	9.	0.	16.	649.	1103.	58.49
03-19-83	0.	92.	264.	732.	1537.	8.	0.	16.	-583.	27.	58.44
03-20-83	0.	134.	212.	720.	1535.	6.	0.	16.	-517.	198.	58.40
03-21-83	42.	118.	220.	692.	1985.	6.	0.	16.	-935.	191.	58.36
03-22-83	0.	218.	206.	694.	1841.	6.	0.	16.	-1090.	46.	58.25
03-23-83	0.	143.	190.	688.	1755.	5.	0.	16.	-288.	710.	58.19
03-24-83	609.	109.	208.	651.	1684.	6.	0.	16.	-320.	-17.	58.21
03-25-83	0.	185.	214.	659.	1605.	6.	0.	16.	-1052.	-158.	58.14
03-26-83	0.	126.	198.	660.	1434.	6.	0.	16.	-603.	77.	58.04
03-27-83	934.	185.	212.	639.	1452.	6.	0.	16.	-2062.	-2233.	58.04
03-28-83	0.	17.	309.	478.	1458.	9.	0.	16.	-1780.	-1118.	57.72
03-29-83	0.	210.	323.	256.	1325.	10.	0.	16.	-282.	648.	57.75
03-30-83	0.	143.	284.	266.	1299.	8.	0.	16.	-592.	276.	57.67
03-31-83	577.	134.	303.	272.	1269.	9.	0.	16.	-592.	-366.	57.66
TOTAL:	4378.	3830.	5597.	15150.	29835.	159.	4.	496.	-1747.	6134.	

TOTAL INFLOW = 25785. ACRE-FT
TOTAL OUTFLOW = 33666. ACRE-FT
TOTAL SEEPAGE = 496. ACRE-FT
STORAGE CHANGE = -1747. ACRE-FT
RESIDUE INFLOW = 6134. ACRE-FT
MEAN LAKE STAGE = 58.07 FT
MEAN LAKE AREA = 12709. ACRE
MEAN LAKE VOLUME = 126785. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
04-01-83	0.	210.	284.	278.	2037.	8.	0.	18.	-837.	822.	57.57
04-02-83	84.	193.	252.	282.	2005.	7.	0.	18.	-774.	782.	57.52
04-03-83	0.	42.	216.	288.	1730.	6.	0.	18.	-925.	319.	57.45
04-04-83	0.	244.	182.	430.	1281.	5.	0.	18.	-645.	244.	57.38
04-05-83	0.	218.	155.	438.	1254.	4.	0.	18.	-583.	274.	57.35
04-06-83	0.	210.	135.	440.	1234.	4.	0.	18.	-856.	-9.	57.28
04-07-83	21.	227.	117.	438.	1198.	3.	0.	18.	-244.	584.	57.21
04-08-83	409.	185.	147.	440.	1206.	4.	0.	18.	397.	769.	57.24
04-09-83	546.	134.	177.	440.	1202.	5.	0.	18.	550.	701.	57.27
04-10-83	630.	126.	321.	442.	1190.	10.	0.	18.	399.	294.	57.33
04-11-83	0.	244.	361.	532.	1214.	11.	0.	18.	61.	598.	57.34
04-12-83	0.	218.	317.	583.	1208.	9.	0.	18.	-276.	223.	57.34
04-13-83	0.	218.	266.	583.	1214.	8.	0.	18.	-643.	-85.	57.29
04-14-83	0.	260.	228.	583.	1192.	7.	0.	18.	-641.	-24.	57.24
04-15-83	220.	210.	196.	577.	1160.	6.	0.	18.	-670.	-317.	57.19
04-16-83	0.	193.	169.	577.	1174.	5.	0.	18.	-850.	-251.	57.13
04-17-83	0.	277.	147.	579.	1142.	4.	0.	18.	-1301.	-629.	57.05
04-18-83	42.	235.	127.	415.	1091.	3.	0.	18.	-1744.	-1022.	56.91
04-19-83	126.	260.	117.	307.	1127.	3.	0.	18.	-1493.	-677.	56.75
04-20-83	0.	202.	103.	313.	1095.	3.	0.	18.	-1159.	-300.	56.66
04-21-83	0.	168.	91.	317.	1061.	2.	0.	18.	-1006.	-205.	56.56
04-22-83	0.	193.	81.	319.	1055.	2.	0.	18.	-708.	120.	56.49
04-23-83	514.	193.	95.	319.	1010.	2.	0.	18.	-441.	-188.	56.44
04-24-83	0.	109.	107.	319.	980.	3.	0.	18.	-764.	-122.	56.42
04-25-83	0.	336.	95.	325.	1190.	2.	0.	18.	-1024.	61.	56.31
04-26-83	0.	302.	89.	327.	1325.	2.	0.	18.	-554.	637.	56.24
04-27-83	0.	202.	75.	329.	1101.	2.	0.	18.	-291.	587.	56.22
04-28-83	0.	302.	65.	329.	904.	2.	0.	18.	-466.	327.	56.19
04-29-83	0.	235.	58.	331.	904.	1.	0.	18.	-639.	93.	56.14
04-30-83	0.	277.	50.	331.	897.	1.	0.	18.	-492.	282.	56.08
TOTAL:	2593.	6426.	4824.	12216.	36381.	135.	0.	529.	-18619.	3890.	

TOTAL INFLOW = 20297. ACRE-FT
TOTAL OUTFLOW = 42807. ACRE-FT
TOTAL SEEPAGE = 529. ACRE-FT
STORAGE CHANGE = -18619. ACRE-FT
RESIDUE INFLOW = 3890. ACRE-FT
MEAN LAKE STAGE = 56.92 FT
MEAN LAKE AREA = 12030. ACRE
MEAN LAKE VOLUME = 112139. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
05-01-83	0.	210.	46.	331.	895.	1.	3.	18.	-607.	98.	56.05
05-02-83	0.	218.	42.	139.	649.	1.	3.	18.	-663.	1.	55.98
05-03-83	0.	244.	38.	0.	476.	1.	3.	18.	-403.	257.	55.94
05-04-83	63.	218.	22.	0.	476.	0.	3.	18.	-517.	71.	55.91
05-05-83	94.	101.	22.	0.	478.	0.	3.	18.	-716.	-276.	55.84
05-06-83	0.	210.	22.	0.	476.	0.	3.	18.	-714.	-72.	55.78
05-07-83	0.	286.	22.	0.	476.	0.	3.	18.	-541.	177.	55.72
05-08-83	0.	311.	22.	0.	474.	0.	3.	18.	-569.	172.	55.69
05-09-83	0.	227.	22.	0.	198.	0.	3.	18.	-426.	-44.	55.62
05-10-83	0.	252.	22.	103.	0.	0.	3.	18.	57.	162.	55.61
05-11-83	0.	311.	22.	169.	0.	0.	3.	18.	397.	496.	55.63
05-12-83	21.	252.	22.	171.	0.	0.	3.	18.	313.	330.	55.68
05-13-83	0.	235.	22.	167.	0.	0.	3.	18.	28.	53.	55.69
05-14-83	0.	311.	22.	165.	0.	0.	3.	18.	0.	103.	55.69
05-15-83	0.	294.	22.	169.	0.	0.	3.	18.	-85.	-4.	55.69
05-16-83	0.	235.	22.	73.	0.	0.	3.	18.	-540.	-422.	55.67
05-17-83	0.	227.	22.	0.	196.	0.	3.	18.	-907.	-527.	55.59
05-18-83	0.	235.	22.	0.	502.	0.	3.	18.	-875.	-182.	55.51
05-19-83	0.	260.	22.	0.	617.	0.	3.	18.	-731.	102.	55.44
05-20-83	0.	227.	22.	0.	613.	0.	3.	18.	-730.	66.	55.38
05-21-83	0.	269.	22.	0.	611.	0.	3.	18.	-615.	221.	55.30
05-22-83	0.	311.	22.	0.	607.	0.	3.	18.	-335.	539.	55.27
05-23-83	10.	260.	22.	0.	603.	0.	3.	18.	-502.	307.	55.25
05-24-83	0.	151.	22.	0.	599.	0.	3.	18.	-779.	-72.	55.18
05-25-83	0.	143.	22.	0.	436.	0.	3.	18.	-748.	-213.	55.11
05-26-83	0.	286.	22.	0.	311.	0.	3.	18.	-608.	-55.	55.04
05-27-83	0.	319.	6.	0.	220.	0.	3.	18.	-358.	153.	55.00
05-28-83	0.	269.	8.	0.	143.	0.	3.	18.	-220.	162.	54.98
05-29-83	0.	269.	6.	0.	143.	0.	3.	18.	-193.	191.	54.96
05-30-83	661.	227.	12.	0.	143.	0.	3.	18.	468.	142.	54.95
05-31-83	514.	193.	32.	0.	143.	0.	3.	18.	470.	237.	55.04
TOTAL:	1365.	7560.	690.	1486.	10485.	6.	108.	562.	-11652.	2175.	

TOTAL INFLOW = 4218. ACRE-FT
TOTAL OUTFLOW = 18045. ACRE-FT
TOTAL SEEPAGE = 562. ACRE-FT
STORAGE CHANGE = -11652. ACRE-FT
RESIDUE INFLOW = 2175. ACRE-FT
MEAN LAKE STAGE = 55.49 FT
MEAN LAKE AREA = 11281. ACRE
MEAN LAKE VOLUME = 94760. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
06-01-83	21.	160.	28.	0.	54.	0.	0.	18.	-83.	63.	55.03
06-02-83	116.	218.	34.	0.	0.	1.	0.	18.	-55.	-5.	55.02
06-03-83	157.	193.	38.	0.	0.	1.	0.	18.	0.	-21.	55.02
06-04-83	0.	252.	32.	0.	0.	0.	0.	18.	-28.	174.	55.02
06-05-83	325.	244.	26.	0.	0.	0.	0.	18.	-28.	-154.	55.01
06-06-83	829.	185.	50.	0.	0.	1.	0.	18.	469.	-244.	55.02
06-07-83	788.	193.	133.	0.	0.	4.	0.	18.	1469.	719.	55.10
06-08-83	1669.	252.	216.	0.	0.	6.	0.	18.	1677.	18.	55.28
06-09-83	987.	227.	244.	0.	0.	7.	0.	18.	730.	-299.	55.40
06-10-83	0.	202.	218.	0.	0.	6.	0.	18.	141.	99.	55.42
06-11-83	0.	252.	169.	0.	0.	5.	0.	18.	169.	229.	55.43
06-12-83	0.	260.	131.	0.	0.	4.	0.	18.	591.	699.	55.45
06-13-83	871.	311.	115.	0.	0.	3.	0.	18.	706.	9.	55.53
06-14-83	105.	168.	107.	0.	0.	3.	0.	18.	255.	190.	55.57
06-15-83	21.	235.	111.	0.	0.	3.	0.	18.	57.	139.	55.58
06-16-83	0.	277.	99.	0.	0.	3.	0.	18.	0.	157.	55.58
06-17-83	0.	260.	85.	0.	0.	2.	0.	18.	-57.	98.	55.58
06-18-83	0.	294.	69.	0.	0.	2.	0.	18.	-57.	148.	55.57
06-19-83	0.	252.	60.	0.	0.	1.	0.	18.	0.	173.	55.56
06-20-83	84.	294.	52.	0.	0.	1.	0.	18.	255.	394.	55.57
06-21-83	210.	101.	54.	0.	0.	1.	0.	18.	255.	73.	55.61
06-22-83	31.	143.	54.	0.	0.	1.	0.	18.	113.	152.	55.62
06-23-83	430.	210.	56.	0.	0.	1.	0.	18.	369.	73.	55.63
06-24-83	724.	210.	75.	0.	0.	2.	0.	18.	455.	-155.	55.68
06-25-83	0.	193.	97.	0.	0.	3.	0.	18.	171.	246.	55.71
06-26-83	21.	168.	95.	0.	0.	2.	0.	18.	1253.	1284.	55.71
06-27-83	210.	227.	87.	444.	0.	2.	0.	18.	1467.	932.	55.93
06-28-83	0.	252.	77.	335.	0.	2.	0.	18.	-230.	-411.	55.97
06-29-83	0.	277.	65.	341.	0.	2.	0.	18.	-57.	-207.	55.89
06-30-83	1123.	244.	63.	335.	0.	1.	0.	18.	634.	-665.	55.96
TOTAL:	8725.	6754.	2739.	1456.	54.	70.	13.	535.	10641.	3909.	

TOTAL INFLOW = 13539. ACRE-FT
TOTAL OUTFLOW = 6807. ACRE-FT
TOTAL SEEPAGE = 535. ACRE-FT
STORAGE CHANGE = 10641. ACRE-FT
RESIDUE INFLOW = 3909. ACRE-FT
MEAN LAKE STAGE = 55.48 FT
MEAN LAKE AREA = 11277. ACRE
MEAN LAKE VOLUME = 94675. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
07-01-83	1344.	151.	93.	145.	0.	2.	5.	17.	231.	-1224.	56.00
07-02-83	0.	193.	149.	0.	0.	4.	5.	17.	144.	163.	56.00
07-03-83	0.	193.	163.	0.	0.	5.	5.	17.	173.	178.	56.02
07-04-83	147.	193.	163.	0.	0.	5.	5.	17.	116.	-27.	56.02
07-05-83	147.	218.	147.	0.	0.	4.	5.	17.	260.	159.	56.04
07-06-83	136.	252.	163.	99.	0.	5.	5.	17.	724.	551.	56.07
07-07-83	1018.	370.	389.	169.	0.	12.	5.	17.	1308.	69.	56.17
07-08-83	252.	210.	438.	327.	0.	13.	5.	17.	1784.	941.	56.30
07-09-83	0.	101.	347.	482.	0.	10.	5.	17.	1415.	655.	56.48
07-10-83	0.	193.	268.	482.	0.	8.	5.	17.	768.	182.	56.54
07-11-83	0.	252.	206.	557.	0.	6.	5.	17.	978.	439.	56.61
07-12-83	0.	277.	155.	609.	0.	4.	5.	17.	774.	262.	56.70
07-13-83	0.	252.	137.	599.	0.	4.	5.	17.	-239.	-748.	56.74
07-14-83	0.	277.	115.	351.	0.	3.	5.	17.	-1011.	-1224.	56.66
07-15-83	0.	210.	93.	157.	0.	2.	5.	17.	-562.	-626.	56.56
07-16-83	0.	244.	79.	159.	0.	2.	5.	17.	30.	12.	56.56
07-17-83	0.	202.	85.	159.	0.	2.	5.	17.	-30.	-96.	56.57
07-18-83	0.	286.	85.	99.	0.	2.	5.	17.	-148.	-71.	56.56
07-19-83	0.	277.	77.	0.	0.	2.	5.	17.	-148.	28.	56.54
07-20-83	0.	126.	67.	0.	0.	2.	5.	17.	-89.	-53.	56.53
07-21-83	105.	277.	60.	0.	0.	1.	5.	17.	-30.	60.	56.53
07-22-83	0.	168.	67.	0.	0.	2.	5.	17.	-89.	-11.	56.53
07-23-83	0.	244.	87.	0.	0.	2.	5.	17.	-207.	-74.	56.51
07-24-83	0.	244.	79.	0.	0.	2.	5.	17.	-148.	-7.	56.50
07-25-83	0.	294.	67.	0.	0.	2.	5.	17.	-147.	56.	56.49
07-26-83	0.	319.	58.	0.	0.	1.	5.	17.	236.	475.	56.47
07-27-83	1270.	277.	61.	0.	0.	1.	5.	17.	443.	-635.	56.53
07-28-83	21.	227.	54.	95.	0.	1.	5.	17.	177.	212.	56.54
07-29-83	0.	302.	60.	161.	0.	1.	5.	17.	858.	917.	56.56
07-30-83	189.	168.	81.	159.	0.	2.	5.	17.	1012.	727.	56.69
07-31-83	189.	185.	85.	159.	0.	2.	5.	17.	835.	563.	56.73
TOTAL:	4819.	7182.	4179.	4967.	0.	114.	144.	527.	9421.	1852.	

TOTAL INFLOW = 14751. ACRE-FT
TOTAL OUTFLOW = 7182. ACRE-FT
TOTAL SEEPAGE = 527. ACRE-FT
STORAGE CHANGE = 9421. ACRE-FT
RESIDUE INFLOW = 1852. ACRE-FT
MEAN LAKE STAGE = 56.44 FT
MEAN LAKE AREA = 11774. ACRE
MEAN LAKE VOLUME = 106267. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGG	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
08-01-83	189.	176.	107.	420.	524.	3.	2.	17.	1018.	980.	56.83
08-02-83	94.	218.	131.	579.	950.	4.	2.	17.	240.	582.	56.90
08-03-83	52.	244.	117.	575.	1083.	3.	2.	17.	-360.	200.	56.87
08-04-83	241.	235.	232.	569.	1174.	7.	2.	17.	-1079.	-738.	56.84
08-05-83	63.	210.	341.	234.	1172.	10.	2.	17.	-1816.	-1100.	56.69
08-06-83	934.	193.	224.	0.	1162.	6.	2.	17.	-739.	-567.	56.54
08-07-83	535.	235.	292.	0.	1164.	9.	2.	17.	592.	1137.	56.57
08-08-83	105.	160.	464.	349.	1375.	14.	2.	17.	1009.	1593.	56.64
08-09-83	73.	235.	442.	625.	1513.	13.	2.	17.	1133.	1709.	56.74
08-10-83	63.	143.	420.	783.	1513.	13.	2.	17.	1138.	1496.	56.83
08-11-83	0.	193.	349.	873.	1505.	10.	2.	17.	542.	989.	56.93
08-12-83	231.	176.	280.	859.	1492.	8.	2.	17.	-120.	151.	56.92
08-13-83	231.	286.	238.	851.	1476.	7.	2.	17.	0.	416.	56.91
08-14-83	367.	193.	228.	837.	1490.	7.	2.	17.	210.	435.	56.92
08-15-83	0.	134.	210.	833.	1486.	6.	2.	17.	-30.	522.	56.94
08-16-83	0.	202.	190.	831.	1494.	5.	2.	17.	-331.	319.	56.91
08-17-83	179.	227.	179.	825.	1482.	5.	2.	17.	-300.	202.	56.89
08-18-83	0.	286.	163.	815.	1484.	5.	2.	17.	-1140.	-372.	56.86
08-19-83	0.	235.	159.	591.	1144.	4.	2.	17.	-1905.	-1298.	56.70
08-20-83	21.	176.	147.	452.	906.	4.	2.	17.	-1035.	-594.	56.54
08-21-83	21.	202.	125.	456.	912.	3.	2.	17.	-354.	135.	56.52
08-22-83	21.	260.	107.	290.	653.	3.	2.	17.	-560.	-86.	56.48
08-23-83	0.	235.	93.	69.	190.	2.	2.	17.	-353.	-111.	56.43
08-24-83	0.	252.	81.	0.	236.	2.	2.	17.	-88.	298.	56.42
08-25-83	84.	193.	73.	0.	0.	2.	2.	17.	0.	15.	56.41
08-26-83	52.	101.	61.	97.	0.	1.	2.	17.	147.	17.	56.42
08-27-83	0.	227.	56.	163.	0.	1.	2.	17.	88.	77.	56.44
08-28-83	84.	193.	52.	165.	0.	1.	2.	17.	206.	79.	56.44
08-29-83	0.	252.	48.	163.	0.	1.	2.	17.	236.	258.	56.47
08-30-83	0.	168.	61.	163.	0.	1.	2.	17.	560.	484.	56.48
08-31-83	441.	218.	60.	163.	0.	1.	2.	17.	2604.	2140.	56.56
TOTAL:	4084.	6460.	5730.	13630.	27580.	163.	56.	520.	-485.	9370.	

TOTAL INFLOW = 24184. ACRE-FT
TOTAL OUTFLOW = 34040. ACRE-FT
TOTAL SEEPAGE = 520. ACRE-FT
STORAGE CHANGE = -485. ACRE-FT
RESIDUE INFLOW = 9370. ACRE-FT
MEAN LAKE STAGE = 56.68 FT
MEAN LAKE AREA = 11898. ACRE
MEAN LAKE VOLUME = 109133. ACRE-FT

LAKE EAST TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	BOGB	S62	S59	JIMB	DAKO	SEEP	DSTOR	RESIDUE	STAGE
09-01-83	1407.	252.	119.	420.	385.	3.	2.	16.	3007.	1676.	56.92
09-02-83	588.	185.	129.	589.	657.	4.	2.	16.	1151.	665.	57.07
09-03-83	871.	109.	141.	591.	658.	4.	2.	16.	394.	-463.	57.11
09-04-83	0.	143.	139.	591.	658.	4.	2.	16.	121.	171.	57.13
09-05-83	0.	210.	143.	591.	655.	4.	2.	16.	-152.	-43.	57.13
09-06-83	0.	210.	133.	587.	635.	4.	2.	16.	-334.	-230.	57.11
09-07-83	0.	244.	121.	585.	617.	3.	2.	16.	-363.	-230.	57.07
09-08-83	0.	143.	107.	581.	615.	3.	2.	16.	-424.	-375.	57.04
09-09-83	0.	176.	95.	579.	780.	2.	2.	16.	-423.	-161.	57.00
09-10-83	0.	202.	83.	575.	940.	2.	2.	16.	-362.	101.	56.98
09-11-83	116.	218.	71.	573.	940.	2.	2.	16.	-873.	-494.	56.94
09-12-83	0.	252.	65.	228.	569.	2.	2.	16.	-1198.	-690.	56.83
09-13-83	976.	185.	63.	0.	319.	1.	2.	16.	-626.	-1182.	56.74
09-14-83	21.	118.	65.	91.	317.	2.	2.	16.	-149.	89.	56.73
09-15-83	0.	59.	73.	157.	121.	2.	2.	16.	238.	168.	56.72
09-16-83	483.	151.	149.	157.	0.	4.	2.	16.	866.	207.	56.76
09-17-83	0.	101.	309.	155.	0.	9.	2.	16.	720.	330.	56.86
09-18-83	157.	50.	262.	153.	0.	8.	2.	16.	631.	83.	56.89
09-19-83	556.	126.	292.	309.	381.	9.	2.	16.	964.	287.	56.97
09-20-83	315.	168.	397.	426.	643.	12.	2.	16.	333.	-25.	57.05
09-21-83	84.	126.	397.	258.	672.	12.	2.	16.	-755.	-725.	57.02
09-22-83	10.	168.	387.	149.	950.	12.	2.	16.	-1143.	-600.	56.92
09-23-83	0.	218.	323.	151.	897.	10.	2.	16.	-1348.	-735.	56.83
09-24-83	0.	109.	258.	153.	813.	8.	2.	16.	-1369.	-883.	56.70
09-25-83	0.	252.	204.	155.	805.	6.	2.	16.	-534.	141.	56.60
09-26-83	0.	235.	169.	155.	704.	5.	2.	16.	148.	742.	56.61
09-27-83	0.	185.	141.	58.	274.	4.	2.	16.	119.	357.	56.63
09-28-83	0.	193.	121.	0.	0.	3.	2.	16.	59.	110.	56.63
09-29-83	0.	218.	105.	0.	0.	3.	2.	16.	59.	152.	56.64
TOTAL:	5586.	5006.	5062.	9017.	15005.	143.	65.	454.	-1242.	-1557.	

TOTAL INFLOW = 20327. ACRE-FT
TOTAL OUTFLOW = 20011. ACRE-FT
TOTAL SEEPAGE = 454. ACRE-FT
STORAGE CHANGE = -1242. ACRE-FT
RESIDUE INFLOW = -1557. ACRE-FT
MEAN LAKE STAGE = 56.88 FT
MEAN LAKE AREA = 12010. ACRE
MEAN LAKE VOLUME = 111678. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
10-02-81	0.	357.	0.	436.	91.	4.	0.	17.	1.	149.	288.	5.	0.	0.	0.	0.	0.	100.	85.	53.92
10-03-81	0.	342.	0.	403.	93.	4.	0.	16.	1.	139.	264.	5.	0.	0.	0.	0.	0.	0.	8.	53.92
10-04-81	0.	314.	0.	369.	93.	3.	0.	14.	1.	129.	240.	5.	0.	0.	0.	0.	0.	-100.	-85.	53.92
10-05-81	0.	428.	0.	343.	91.	2.	0.	13.	1.	121.	222.	5.	0.	0.	0.	0.	0.	0.	155.	53.91
10-06-81	0.	300.	0.	319.	93.	3.	0.	12.	1.	115.	204.	5.	0.	0.	0.	0.	0.	100.	153.	53.92
10-07-81	0.	285.	0.	294.	93.	2.	0.	11.	1.	109.	184.	5.	0.	0.	0.	0.	0.	50.	116.	53.92
10-08-81	0.	328.	0.	280.	93.	2.	0.	10.	1.	103.	177.	5.	0.	0.	0.	0.	0.	100.	224.	53.93
10-09-81	18.	300.	0.	262.	93.	2.	0.	9.	1.	99.	163.	5.	0.	0.	0.	0.	0.	50.	146.	53.93
10-10-81	0.	200.	0.	242.	93.	4.	0.	8.	1.	95.	147.	5.	0.	0.	0.	0.	0.	50.	83.	53.93
10-11-81	0.	385.	0.	238.	93.	2.	0.	8.	1.	93.	145.	5.	0.	0.	0.	0.	0.	-200.	24.	53.94
10-12-81	0.	328.	0.	228.	95.	1.	0.	8.	1.	89.	139.	5.	0.	0.	0.	0.	0.	-400.	-220.	53.91
10-13-81	0.	342.	0.	224.	95.	2.	0.	8.	1.	85.	139.	5.	0.	0.	0.	0.	0.	-200.	-1.	53.90
10-14-81	36.	285.	0.	192.	95.	1.	0.	6.	0.	85.	107.	5.	0.	0.	0.	0.	0.	-100.	40.	53.89
10-15-81	107.	328.	0.	186.	95.	2.	0.	6.	1.	85.	101.	5.	0.	0.	0.	0.	0.	-50.	66.	53.89
10-16-81	0.	171.	0.	171.	93.	2.	0.	5.	1.	85.	85.	5.	0.	0.	0.	0.	0.	-100.	-19.	53.89
10-17-81	0.	371.	0.	167.	93.	2.	0.	5.	1.	85.	81.	5.	0.	0.	0.	0.	0.	-100.	185.	53.88
10-18-81	0.	200.	0.	163.	93.	2.	0.	5.	1.	83.	79.	5.	0.	0.	0.	0.	0.	-150.	-31.	53.88
10-19-81	0.	214.	0.	169.	95.	1.	0.	5.	1.	81.	87.	5.	0.	0.	0.	0.	0.	-349.	-220.	53.86
10-20-81	0.	285.	0.	157.	93.	1.	0.	4.	1.	79.	77.	5.	0.	0.	0.	0.	0.	-249.	-38.	53.84
10-21-81	0.	300.	0.	155.	93.	1.	0.	4.	1.	79.	75.	5.	0.	0.	0.	0.	0.	0.	227.	53.84
10-22-81	18.	157.	0.	151.	93.	1.	0.	4.	1.	77.	73.	5.	0.	0.	0.	0.	0.	50.	120.	53.84
10-23-81	0.	342.	0.	149.	93.	1.	0.	4.	1.	77.	71.	5.	0.	0.	0.	0.	0.	100.	375.	53.84
10-24-81	892.	271.	0.	198.	93.	17.	4.	6.	1.	87.	111.	5.	0.	0.	0.	0.	0.	598.	-161.	53.85
10-25-81	0.	371.	0.	472.	93.	25.	7.	19.	1.	117.	355.	5.	0.	0.	0.	0.	0.	650.	586.	53.90
10-26-81	731.	157.	0.	407.	93.	6.	1.	16.	1.	119.	288.	5.	0.	0.	0.	0.	0.	300.	-615.	53.92
10-27-81	107.	257.	0.	393.	93.	13.	3.	15.	1.	133.	260.	5.	0.	0.	0.	0.	0.	300.	114.	53.93
10-28-81	0.	100.	0.	349.	95.	6.	1.	13.	1.	129.	220.	5.	0.	0.	0.	0.	0.	301.	121.	53.95
10-29-81	0.	171.	0.	325.	95.	4.	0.	12.	1.	129.	196.	5.	0.	0.	0.	0.	0.	401.	321.	53.96
10-30-81	499.	214.	0.	401.	95.	17.	4.	16.	1.	141.	260.	5.	0.	0.	0.	0.	0.	553.	-81.	53.99
10-31-81	143.	157.	0.	484.	97.	11.	2.	19.	1.	153.	331.	5.	0.	0.	0.	0.	0.	503.	93.	54.02
TOTAL:	2550.	8260.	0.	8325.	146.		21.	298.	23.	3154.	5171.	143.	0.	0.	2.	0.	0.	2208.	1773.	

TOTAL INFLOW = 11509. ACRE-FT
TOTAL OUTFLOW = 11073. ACRE-FT
TOTAL SEEPAGE = 143. ACRE-FT
STORAGE CHANGE = 2208. ACRE-FT
RESIDUE INFLOW = 1773. ACRE-FT
MEAN LAKE STAGE = 53.91 FT
MEAN LAKE AREA = 19993. ACRE
MEAN LAKE VOLUME = 124294. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDS	NPAR	SPAR	PARP	DSTOR	RES	STG
11-01-81	749.	271.	0.	454.	95.	7.	1.	18.	1.	161.	294.	5.	0.	2.	6.	0.	0.	252.	-624.	54.04
11-02-81	0.	243.	0.	415.	95.	5.	0.	16.	1.	163.	252.	5.	0.	2.	6.	0.	0.	151.	40.	54.04
11-03-81	53.	285.	0.	399.	95.	4.	0.	15.	1.	167.	232.	5.	0.	2.	6.	0.	0.	605.	501.	54.05
11-04-81	1623.	200.	0.	454.	95.	18.	4.	18.	1.	177.	278.	5.	0.	2.	6.	0.	0.	1366.	-469.	54.10
11-05-81	1106.	86.	0.	643.	95.	27.	7.	26.	1.	200.	442.	5.	0.	2.	6.	0.	0.	1323.	-318.	54.19
11-06-81	232.	157.	0.	672.	97.	16.	4.	28.	1.	220.	452.	5.	0.	2.	6.	0.	0.	510.	-201.	54.23
11-07-81	0.	371.	0.	597.	97.	8.	1.	24.	1.	222.	375.	5.	0.	2.	6.	0.	0.	102.	-74.	54.24
11-08-81	0.	200.	0.	541.	95.	6.	0.	22.	1.	226.	315.	5.	0.	2.	6.	0.	0.	204.	-84.	54.24
11-09-81	0.	200.	0.	528.	95.	4.	0.	21.	1.	226.	301.	5.	0.	2.	6.	0.	0.	460.	188.	54.26
11-10-81	285.	185.	0.	508.	95.	4.	0.	20.	1.	218.	290.	5.	0.	2.	6.	0.	0.	615.	65.	54.29
11-11-81	0.	143.	0.	520.	97.	5.	0.	21.	1.	206.	313.	5.	0.	2.	6.	0.	0.	359.	40.	54.32
11-12-81	107.	200.	0.	474.	99.	5.	0.	19.	1.	186.	288.	5.	0.	2.	6.	0.	0.	51.	-268.	54.32
11-13-81	0.	143.	0.	422.	99.	3.	0.	17.	1.	169.	254.	5.	0.	2.	6.	0.	0.	51.	-163.	54.32
11-14-81	0.	314.	0.	367.	97.	3.	0.	14.	1.	151.	216.	5.	0.	2.	6.	0.	0.	51.	65.	54.33
11-15-81	0.	157.	0.	323.	97.	3.	0.	12.	1.	137.	186.	5.	0.	2.	6.	0.	0.	103.	5.	54.33
11-16-81	36.	214.	0.	286.	97.	3.	0.	10.	1.	125.	161.	5.	0.	2.	6.	0.	0.	206.	169.	54.34
11-17-81	107.	200.	0.	274.	97.	4.	0.	10.	1.	117.	157.	5.	0.	2.	6.	0.	0.	51.	-59.	54.35
11-18-81	0.	371.	0.	250.	97.	4.	0.	9.	1.	111.	139.	5.	0.	2.	6.	0.	0.	0.	192.	54.34
11-19-81	0.	214.	0.	232.	97.	3.	0.	8.	1.	105.	127.	5.	0.	2.	6.	0.	0.	103.	158.	54.35
11-20-81	0.	128.	0.	218.	97.	4.	0.	7.	1.	99.	119.	5.	0.	2.	6.	0.	0.	-51.	-68.	54.35
11-21-81	0.	185.	0.	224.	99.	4.	0.	8.	1.	95.	129.	5.	0.	2.	6.	0.	0.	-154.	-119.	54.34
11-22-81	0.	228.	0.	204.	97.	2.	0.	7.	1.	91.	113.	5.	0.	2.	6.	0.	0.	-51.	48.	54.34
11-23-81	0.	185.	0.	200.	97.	2.	0.	6.	1.	89.	111.	5.	0.	2.	6.	0.	0.	0.	60.	54.34
11-24-81	0.	114.	0.	192.	97.	3.	0.	6.	1.	85.	107.	5.	0.	2.	6.	0.	0.	0.	-3.	54.34
11-25-81	0.	228.	0.	194.	97.	3.	0.	6.	1.	85.	109.	5.	0.	2.	6.	0.	0.	0.	109.	54.34
11-26-81	0.	143.	0.	192.	97.	2.	0.	6.	1.	83.	109.	5.	0.	2.	6.	0.	0.	103.	128.	54.34
11-27-81	0.	228.	0.	190.	97.	3.	0.	6.	1.	83.	107.	5.	0.	2.	6.	0.	0.	154.	267.	54.35
11-28-81	0.	171.	0.	190.	97.	2.	0.	6.	1.	81.	109.	5.	0.	2.	6.	0.	0.	154.	211.	54.35
11-29-81	0.	143.	0.	188.	97.	2.	0.	6.	1.	79.	109.	5.	0.	2.	6.	0.	0.	103.	133.	54.36
11-30-81	0.	228.	0.	184.	97.	3.	0.	6.	1.	79.	105.	5.	0.	2.	6.	0.	0.	51.	171.	54.36
TOTAL:	4298.	6135.	0.	10538.	2906.	158.	19.	398.	24.	4239.	6300.	147.	0.	65.	167.	0.	3.	6874.	99.	

TOTAL INFLOW = 15815. ACRE-FT
TOTAL OUTFLOW = 9040. ACRE-FT
TOTAL SEEPAGE = 147. ACRE-FT
STORAGE CHANGE = 6874. ACRE-FT
RESIDUE INFLOW = 99. ACRE-FT
MEAN LAKE STAGE = 54.28 FT
MEAN LAKE AREA = 20480. ACRE
MEAN LAKE VOLUME = 131871. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
12-01-81	0.	114.	0.	175.	97.	3.	0.	5.	1.	77.	97.	5.	0.	0.	2.	0.	0.	463.	485.	54.37
12-02-81	1427.	257.	0.	198.	97.	17.	4.	6.	1.	81.	117.	5.	0.	0.	2.	0.	0.	878.	-429.	54.41
12-03-81	375.	100.	0.	230.	99.	16.	4.	8.	1.	89.	141.	5.	0.	0.	2.	0.	0.	518.	77.	54.45
12-04-81	0.	200.	0.	206.	99.	6.	0.	7.	1.	87.	119.	5.	0.	0.	2.	0.	0.	-207.	-135.	54.46
12-05-81	0.	243.	0.	202.	101.	4.	0.	7.	1.	85.	117.	5.	0.	0.	2.	0.	0.	-310.	-187.	54.43
12-06-81	0.	143.	0.	190.	99.	3.	0.	6.	1.	83.	107.	5.	0.	0.	2.	0.	0.	0.	35.	54.43
12-07-81	0.	157.	0.	184.	99.	2.	0.	6.	1.	83.	101.	5.	0.	0.	2.	0.	0.	52.	108.	54.43
12-08-81	0.	114.	0.	184.	99.	3.	0.	6.	0.	81.	103.	5.	0.	0.	2.	0.	0.	-52.	-38.	54.43
12-09-81	0.	214.	0.	190.	99.	2.	0.	6.	1.	79.	111.	5.	0.	0.	2.	0.	0.	-207.	-100.	54.43
12-10-81	0.	285.	0.	180.	99.	2.	0.	6.	1.	77.	103.	5.	0.	0.	2.	0.	0.	-258.	-70.	54.41
12-11-81	0.	157.	0.	173.	99.	3.	0.	5.	1.	75.	97.	5.	0.	0.	2.	0.	0.	-206.	-138.	54.40
12-12-81	0.	228.	0.	171.	99.	2.	0.	5.	1.	75.	95.	5.	0.	0.	2.	0.	0.	-103.	39.	54.39
12-13-81	18.	100.	0.	175.	99.	2.	0.	5.	1.	73.	101.	5.	0.	0.	2.	0.	0.	155.	147.	54.39
12-14-81	0.	100.	0.	169.	97.	2.	0.	5.	1.	73.	95.	5.	0.	0.	2.	0.	0.	361.	375.	54.41
12-15-81	446.	157.	0.	171.	99.	4.	0.	5.	1.	77.	93.	5.	0.	0.	2.	0.	0.	258.	-119.	54.43
12-16-81	143.	257.	0.	188.	99.	5.	0.	6.	1.	77.	111.	5.	0.	0.	2.	0.	0.	103.	109.	54.43
12-17-81	0.	143.	0.	179.	99.	4.	0.	5.	1.	77.	101.	5.	0.	0.	2.	0.	0.	207.	253.	54.44
12-18-81	160.	43.	0.	180.	99.	3.	0.	6.	1.	79.	101.	5.	0.	0.	2.	0.	0.	155.	-60.	54.45
12-19-81	18.	114.	0.	188.	101.	2.	0.	6.	1.	79.	109.	5.	0.	0.	2.	0.	0.	-207.	-213.	54.45
12-20-81	18.	100.	0.	186.	101.	2.	0.	6.	1.	77.	109.	5.	0.	0.	2.	0.	0.	-259.	-277.	54.43
12-21-81	18.	157.	0.	177.	99.	3.	0.	5.	1.	77.	99.	5.	0.	0.	2.	0.	0.	-52.	-5.	54.43
12-22-81	0.	185.	0.	175.	99.	3.	0.	5.	1.	77.	97.	5.	0.	0.	2.	0.	0.	52.	146.	54.43
12-23-81	0.	128.	0.	177.	99.	4.	0.	5.	1.	77.	99.	5.	0.	0.	2.	0.	0.	103.	138.	54.43
12-24-81	0.	114.	0.	175.	99.	5.	0.	5.	1.	77.	97.	5.	0.	0.	2.	0.	0.	155.	176.	54.44
12-25-81	0.	171.	0.	169.	99.	5.	0.	5.	1.	75.	93.	5.	0.	0.	2.	0.	0.	259.	342.	54.45
12-26-81	1427.	114.	0.	190.	99.	13.	3.	6.	1.	81.	109.	5.	0.	0.	2.	0.	0.	829.	-605.	54.46
12-27-81	339.	86.	0.	274.	99.	30.	8.	10.	1.	107.	167.	5.	0.	0.	2.	0.	0.	832.	349.	54.53
12-28-81	0.	57.	0.	282.	99.	11.	2.	10.	1.	119.	163.	5.	0.	0.	2.	0.	0.	365.	208.	54.54
12-29-81	0.	57.	0.	280.	99.	7.	1.	10.	1.	129.	151.	5.	0.	0.	2.	0.	0.	261.	112.	54.56
12-30-81	0.	243.	0.	307.	101.	6.	1.	11.	1.	141.	167.	5.	0.	0.	2.	0.	0.	261.	271.	54.57
12-31-81	0.	143.	0.	298.	99.	6.	0.	11.	1.	153.	145.	5.	0.	0.	2.	0.	0.	261.	181.	54.59
TOTAL:	4387.	4679.	0.	6222.	3076.	179.	26.	200.	24.	2705.	3517.	143.	0.	6.	61.	0.	0.	4667.	1175.	

TOTAL INFLOW = 11248. ACRE-FT
TOTAL OUTFLOW = 7756. ACRE-FT
TOTAL SEEPAGE = 143. ACRE-FT
STORAGE CHANGE = 4667. ACRE-FT
RESIDUE INFLOW = 1175. ACRE-FT
MEAN LAKE STAGE = 54.45 FT
MEAN LAKE AREA = 20704. ACRE
MEAN LAKE VOLUME = 135286. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
01-01-82	0.	157.	0.	327.	99.	6.	0.	6.	1.	159.	169.	5.	0.	0.	13.	2.	0.	157.	53.	54.59
01-02-82	0.	157.	0.	335.	99.	6.	0.	4.	1.	157.	179.	5.	0.	0.	13.	2.	0.	314.	205.	54.60
01-03-82	0.	171.	0.	343.	99.	5.	0.	5.	1.	149.	194.	5.	0.	0.	13.	2.	0.	262.	159.	54.62
01-04-82	89.	214.	0.	351.	99.	6.	10.	1.	1.	139.	212.	5.	0.	0.	13.	2.	0.	52.	-113.	54.63
01-05-82	53.	157.	0.	361.	101.	5.	17.	14.	1.	131.	230.	5.	0.	0.	13.	2.	0.	0.	-213.	54.63
01-06-82	0.	200.	0.	369.	101.	5.	0.	14.	1.	121.	248.	5.	0.	0.	13.	2.	0.	52.	-55.	54.63
01-07-82	0.	171.	0.	375.	99.	5.	0.	14.	1.	115.	260.	5.	0.	0.	13.	2.	0.	210.	65.	54.63
01-08-82	143.	143.	0.	385.	101.	5.	0.	0.	1.	111.	274.	5.	0.	0.	13.	2.	0.	157.	-152.	54.65
01-09-82	18.	86.	0.	393.	101.	5.	0.	0.	1.	107.	286.	5.	0.	0.	13.	2.	0.	-105.	-354.	54.65
01-10-82	18.	314.	0.	401.	101.	4.	0.	0.	1.	101.	300.	5.	0.	0.	13.	2.	0.	-262.	-290.	54.64
01-11-82	18.	171.	0.	409.	103.	4.	0.	0.	1.	95.	313.	5.	0.	0.	13.	2.	0.	-314.	-491.	54.62
01-12-82	0.	185.	0.	409.	101.	4.	0.	0.	1.	91.	317.	5.	0.	0.	13.	2.	0.	157.	11.	54.61
01-13-82	357.	185.	0.	409.	99.	14.	0.	2.	1.	95.	313.	5.	0.	0.	13.	2.	0.	1101.	583.	54.64
01-14-82	909.	200.	0.	415.	99.	31.	2.	30.	1.	125.	290.	5.	0.	0.	13.	2.	0.	1212.	103.	54.71
01-15-82	963.	243.	0.	369.	101.	12.	0.	26.	1.	147.	222.	5.	0.	0.	13.	2.	0.	528.	-518.	54.75
01-16-82	0.	100.	0.	345.	101.	8.	0.	24.	1.	161.	184.	5.	0.	0.	13.	2.	0.	106.	-91.	54.76
01-17-82	0.	86.	0.	375.	101.	7.	0.	20.	1.	182.	192.	5.	0.	0.	13.	2.	0.	211.	-24.	54.76
01-18-82	0.	157.	0.	403.	101.	6.	0.	14.	1.	204.	198.	5.	0.	0.	13.	2.	0.	476.	291.	54.78
01-19-82	0.	143.	0.	434.	101.	5.	0.	10.	1.	210.	224.	5.	0.	0.	13.	2.	0.	477.	250.	54.81
01-20-82	0.	157.	0.	432.	101.	5.	1.	3.	1.	202.	230.	5.	0.	0.	13.	2.	0.	372.	168.	54.83
01-21-82	0.	171.	0.	401.	101.	5.	1.	1.	1.	186.	214.	5.	0.	0.	13.	2.	0.	319.	163.	54.84
01-22-82	0.	200.	0.	371.	101.	5.	1.	3.	1.	169.	202.	5.	0.	0.	13.	2.	0.	319.	220.	54.86
01-23-82	0.	200.	0.	325.	101.	5.	1.	12.	1.	151.	175.	5.	0.	0.	13.	2.	0.	266.	204.	54.87
01-24-82	0.	214.	0.	309.	103.	5.	1.	11.	1.	137.	173.	5.	0.	0.	13.	2.	0.	107.	77.	54.88
01-25-82	0.	285.	0.	272.	103.	4.	1.	10.	1.	125.	147.	5.	0.	0.	13.	2.	0.	0.	81.	54.88
01-26-82	0.	157.	0.	270.	103.	5.	1.	10.	1.	117.	153.	5.	0.	0.	13.	2.	0.	-107.	-152.	54.88
01-27-82	0.	285.	0.	246.	103.	5.	1.	9.	1.	109.	137.	5.	0.	0.	13.	2.	0.	-53.	55.	54.87
01-28-82	0.	185.	0.	234.	103.	5.	1.	8.	1.	105.	129.	5.	0.	0.	13.	2.	0.	160.	180.	54.88
01-29-82	0.	271.	0.	232.	103.	5.	1.	8.	1.	101.	131.	5.	0.	0.	13.	2.	0.	107.	214.	54.89
01-30-82	0.	271.	0.	228.	103.	5.	1.	8.	1.	97.	131.	5.	0.	0.	13.	2.	0.	107.	218.	54.89
01-31-82	0.	214.	0.	218.	101.	4.	1.	7.	1.	95.	123.	5.	0.	0.	13.	2.	0.	213.	277.	54.90
TOTAL:	2568.	5849.	0.	10744.	3138.	195.	38.	273.	25.	4195.	6549.	141.	0.	3.	418.	53.	6.	6600.	1123.	

TOTAL INFLOW = 14464. ACRE-FT
TOTAL OUTFLOW = 8987. ACRE-FT
TOTAL SEEPAGE = 141. ACRE-FT
STORAGE CHANGE = 6600. ACRE-FT
RESIDUE INFLOW = 1123. ACRE-FT
MEAN LAKE STAGE = 54.75 FT
MEAN LAKE AREA = 21120. ACRE
MEAN LAKE VOLUME = 141553. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
02-01-82	89.	228.	0.	228.	103.	5.	1.	8.	1.	95.	133.	4.	0.	0.	3.	0.	0.	213.	206.	54.91
02-02-82	0.	228.	0.	220.	101.	5.	0.	7.	1.	93.	127.	4.	0.	0.	3.	0.	0.	214.	302.	54.92
02-03-82	107.	285.	0.	222.	103.	5.	0.	7.	1.	89.	133.	4.	0.	0.	3.	0.	0.	107.	145.	54.93
02-04-82	0.	185.	0.	222.	103.	5.	0.	7.	1.	89.	133.	4.	0.	0.	3.	0.	0.	53.	98.	54.93
02-05-82	18.	214.	0.	216.	103.	9.	1.	7.	1.	89.	127.	4.	0.	0.	3.	0.	0.	214.	272.	54.93
02-06-82	303.	300.	0.	218.	103.	9.	1.	7.	1.	89.	129.	4.	0.	0.	3.	0.	0.	214.	70.	54.95
02-07-82	0.	157.	0.	222.	103.	9.	1.	7.	1.	85.	137.	4.	0.	0.	3.	0.	0.	54.	66.	54.95
02-08-82	0.	243.	0.	216.	103.	9.	1.	7.	1.	81.	135.	4.	0.	0.	3.	0.	0.	54.	158.	54.95
02-09-82	196.	157.	0.	200.	101.	10.	1.	6.	1.	79.	121.	4.	0.	0.	3.	0.	0.	214.	50.	54.96
02-10-82	71.	214.	0.	234.	103.	14.	1.	8.	1.	93.	141.	4.	0.	0.	3.	0.	0.	322.	302.	54.97
02-11-82	36.	185.	0.	240.	103.	11.	1.	8.	1.	99.	141.	4.	0.	0.	3.	0.	0.	107.	92.	54.99
02-12-82	232.	114.	0.	226.	103.	10.	0.	8.	1.	93.	133.	4.	0.	0.	3.	0.	0.	161.	-106.	54.98
02-13-82	0.	200.	0.	236.	103.	14.	1.	8.	1.	93.	143.	4.	0.	0.	3.	0.	0.	107.	143.	55.00
02-14-82	0.	200.	0.	228.	103.	13.	1.	8.	1.	93.	135.	4.	0.	0.	3.	0.	0.	-54.	-8.	54.99
02-15-82	143.	300.	0.	222.	103.	16.	2.	7.	1.	95.	127.	4.	0.	0.	3.	0.	0.	376.	380.	55.00
02-16-82	18.	185.	0.	228.	103.	16.	1.	8.	1.	99.	129.	4.	0.	0.	3.	0.	0.	646.	655.	55.03
02-17-82	927.	271.	0.	254.	103.	21.	5.	9.	1.	109.	145.	4.	0.	0.	3.	0.	0.	485.	-365.	55.06
02-18-82	0.	114.	0.	260.	103.	15.	1.	9.	1.	113.	147.	4.	0.	0.	3.	0.	0.	162.	86.	55.07
02-19-82	0.	314.	0.	248.	105.	13.	1.	9.	1.	109.	139.	4.	0.	0.	3.	0.	0.	-54.	87.	55.07
02-20-82	0.	200.	0.	240.	105.	13.	0.	8.	1.	105.	135.	4.	0.	0.	3.	0.	0.	-108.	-73.	55.07
02-21-82	0.	285.	0.	228.	105.	11.	1.	8.	1.	101.	127.	4.	0.	0.	3.	0.	0.	-324.	-189.	55.06
02-22-82	0.	457.	0.	236.	107.	11.	1.	8.	1.	95.	141.	4.	0.	0.	3.	0.	0.	-269.	30.	55.04
02-23-82	0.	342.	0.	216.	103.	13.	0.	7.	1.	89.	127.	4.	0.	0.	3.	0.	0.	0.	200.	55.04
02-24-82	0.	228.	0.	210.	103.	12.	0.	7.	1.	85.	125.	4.	0.	0.	3.	0.	0.	-54.	39.	55.04
02-25-82	0.	243.	0.	208.	103.	13.	0.	7.	1.	81.	127.	4.	0.	0.	3.	0.	0.	-108.	1.	55.03
02-26-82	0.	314.	0.	208.	103.	11.	0.	7.	1.	77.	131.	4.	0.	0.	3.	0.	0.	0.	182.	55.03
02-27-82	0.	114.	0.	192.	103.	9.	0.	6.	1.	75.	117.	4.	0.	0.	3.	0.	0.	54.	55.	55.03
02-28-82	0.	200.	0.	204.	103.	8.	0.	7.	1.	73.	131.	4.	0.	0.	3.	0.	0.	-108.	-32.	55.03
TOTAL:	2140.	6477.	0.	6286.	2894.	308.	23.	211.	22.	2573.	3713.	115.	0.	2.	88.	7.	3.	2679.	2846.	

TOTAL INFLOW = 9204. ACRE-FT
TOTAL OUTFLOW = 9371. ACRE-FT
TOTAL SEEPAGE = 115. ACRE-FT
STORAGE CHANGE = 2679. ACRE-FT
RESIDUE INFLOW = 2846. ACRE-FT
MEAN LAKE STAGE = 55.00 FT
MEAN LAKE AREA = 21482. ACRE
MEAN LAKE VOLUME = 146903. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
03-01-82	0.	328.	0.	206.	105.	9.	0.	7.	1.	73.	133.	4.	0.	13.	12.	1.	5.	-215.	-41.	55.02
03-02-82	107.	86.	0.	200.	105.	11.	0.	6.	1.	69.	131.	4.	0.	13.	12.	1.	5.	-161.	-332.	55.01
03-03-82	0.	271.	0.	186.	103.	11.	0.	6.	1.	67.	119.	4.	0.	13.	12.	1.	5.	-161.	-27.	55.01
03-04-82	0.	200.	0.	180.	103.	11.	0.	6.	1.	67.	113.	4.	0.	13.	12.	1.	5.	215.	284.	55.00
03-05-82	1427.	257.	0.	194.	103.	15.	4.	6.	1.	69.	125.	4.	0.	13.	12.	1.	5.	1507.	184.	55.03
03-06-82	1516.	257.	0.	278.	105.	36.	13.	10.	1.	93.	184.	4.	0.	13.	12.	1.	5.	1735.	209.	55.14
03-07-82	820.	143.	0.	290.	111.	21.	6.	10.	1.	107.	182.	4.	0.	13.	12.	1.	5.	163.	-766.	55.19
03-08-82	0.	185.	0.	351.	670.	17.	1.	13.	1.	127.	224.	4.	0.	13.	12.	1.	5.	-543.	-105.	55.15
03-09-82	0.	243.	0.	321.	296.	11.	0.	12.	1.	133.	188.	4.	0.	13.	12.	1.	5.	-108.	49.	55.14
03-10-82	0.	314.	0.	284.	44.	10.	0.	10.	1.	143.	141.	4.	0.	13.	12.	1.	5.	163.	180.	55.14
03-11-82	392.	300.	0.	280.	44.	12.	3.	10.	1.	147.	133.	4.	0.	13.	12.	1.	5.	380.	-9.	55.15
03-12-82	18.	185.	0.	321.	48.	16.	2.	12.	1.	151.	171.	4.	0.	13.	12.	1.	5.	326.	155.	55.18
03-13-82	0.	314.	0.	298.	50.	10.	0.	11.	1.	145.	153.	4.	0.	13.	12.	1.	5.	218.	226.	55.18
03-14-82	0.	385.	0.	272.	50.	9.	1.	10.	1.	135.	137.	4.	0.	13.	12.	1.	5.	218.	326.	55.20
03-15-82	0.	271.	0.	256.	50.	9.	1.	9.	1.	121.	135.	4.	0.	13.	12.	1.	5.	54.	65.	55.20
03-16-82	0.	314.	0.	248.	50.	10.	1.	7.	1.	109.	139.	4.	0.	13.	12.	1.	5.	54.	116.	55.20
03-17-82	0.	257.	0.	236.	52.	11.	0.	6.	1.	97.	139.	4.	0.	13.	12.	1.	5.	-109.	-90.	55.21
03-18-82	0.	357.	0.	234.	52.	11.	0.	5.	1.	89.	145.	4.	0.	13.	12.	1.	5.	-109.	13.	55.19
03-19-82	0.	357.	0.	218.	50.	10.	1.	5.	1.	81.	137.	4.	0.	13.	12.	1.	5.	0.	137.	55.20
03-20-82	0.	314.	0.	206.	50.	10.	0.	4.	1.	75.	131.	4.	0.	13.	12.	1.	5.	-54.	52.	55.19
03-21-82	0.	385.	0.	194.	50.	9.	0.	4.	1.	71.	123.	4.	0.	13.	12.	1.	5.	-218.	-26.	55.19
03-22-82	0.	314.	0.	192.	740.	9.	0.	3.	1.	69.	123.	4.	0.	13.	12.	1.	5.	-924.	-111.	55.17
03-23-82	0.	428.	0.	194.	1016.	11.	0.	3.	1.	67.	127.	4.	0.	13.	12.	1.	5.	-1136.	62.	55.11
03-24-82	927.	342.	0.	184.	1008.	12.	1.	3.	1.	67.	117.	4.	0.	13.	12.	1.	5.	-432.	-246.	55.07
03-25-82	1123.	399.	0.	242.	1131.	23.	7.	6.	1.	83.	159.	4.	0.	13.	12.	1.	5.	-648.	-554.	55.07
03-26-82	53.	228.	0.	270.	1210.	13.	1.	4.	1.	89.	180.	4.	0.	13.	12.	1.	5.	-1612.	-551.	55.01
03-27-82	71.	414.	0.	238.	1206.	10.	0.	4.	1.	83.	155.	4.	0.	13.	12.	1.	5.	-1549.	-288.	54.92
03-28-82	2693.	300.	0.	262.	1198.	19.	7.	6.	1.	91.	171.	4.	0.	13.	12.	1.	5.	106.	-1419.	54.86
03-29-82	517.	243.	0.	496.	1565.	40.	8.	17.	1.	133.	363.	4.	0.	13.	12.	1.	5.	0.	694.	54.93
03-30-82	18.	171.	0.	417.	1831.	16.	1.	13.	1.	147.	270.	4.	0.	13.	12.	1.	5.	-1437.	65.	54.86
03-31-82	0.	300.	0.	367.	1813.	13.	1.	12.	1.	153.	214.	4.	0.	13.	12.	1.	5.	-1642.	42.	54.79
TOTAL:	9683.	8860.	0.	8116.	15003.	434.	62.	241.	25.	3156.	4961.	129.	0.	393.	376.	39.	153.	-5918.	-1708.	

TOTAL INFLOW = 19652. ACRE-FT
TOTAL OUTFLOW = 23863. ACRE-FT
TOTAL SEEPAGE = 129. ACRE-FT
STORAGE CHANGE = -5918. ACRE-FT
RESIDUE INFLOW = -1708. ACRE-FT
MEAN LAKE STAGE = 55.08 FT
MEAN LAKE AREA = 21613. ACRE
MEAN LAKE VOLUME = 148825. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
04-01-82	0.	357.	0.	337.	1795.	13.	0.	11.	1.	151.	186.	5.	0.	0.	7.	3.	3.	-1580.	192.	54.71
04-02-82	0.	328.	0.	305.	1777.	11.	0.	9.	1.	149.	157.	5.	0.	0.	7.	3.	3.	-1625.	134.	54.64
04-03-82	0.	442.	0.	276.	1732.	11.	0.	8.	1.	143.	133.	5.	0.	0.	7.	3.	3.	-1980.	-121.	54.55
04-04-82	0.	357.	0.	268.	1736.	10.	0.	7.	1.	135.	133.	5.	0.	0.	7.	3.	3.	-1916.	-128.	54.45
04-05-82	0.	442.	0.	220.	1686.	10.	1.	6.	1.	123.	97.	5.	0.	0.	7.	3.	3.	-1802.	71.	54.37
04-06-82	0.	385.	0.	206.	1694.	11.	0.	5.	1.	113.	93.	5.	0.	0.	7.	3.	3.	-2252.	-414.	54.28
04-07-82	0.	514.	0.	196.	1688.	10.	0.	5.	1.	101.	95.	5.	0.	0.	7.	3.	3.	-2182.	-212.	54.15
04-08-82	71.	357.	0.	161.	1603.	8.	0.	5.	1.	93.	67.	5.	0.	0.	7.	3.	3.	-1514.	180.	54.06
04-09-82	1641.	157.	0.	196.	1599.	27.	7.	20.	1.	99.	97.	5.	0.	0.	7.	3.	3.	-804.	-960.	54.00
04-10-82	767.	399.	0.	339.	1617.	36.	3.	35.	1.	151.	188.	5.	0.	0.	7.	3.	3.	-151.	666.	53.98
04-11-82	1230.	285.	0.	462.	1613.	35.	6.	55.	1.	194.	268.	5.	0.	0.	7.	3.	3.	-653.	-561.	53.98
04-12-82	0.	300.	0.	484.	1591.	19.	1.	46.	1.	254.	230.	5.	0.	0.	7.	3.	3.	-1200.	122.	53.92
04-13-82	0.	328.	0.	589.	1561.	16.	1.	39.	1.	343.	246.	5.	0.	0.	7.	3.	3.	-1047.	179.	53.86
04-14-82	0.	271.	0.	746.	1547.	14.	1.	32.	1.	422.	323.	5.	0.	0.	7.	3.	3.	-1093.	-86.	53.81
04-15-82	1355.	314.	0.	815.	1509.	19.	10.	38.	1.	551.	264.	5.	0.	0.	7.	3.	3.	-544.	-978.	53.75
04-16-82	250.	357.	0.	762.	1444.	28.	3.	147.	2.	508.	254.	5.	0.	0.	7.	3.	3.	-347.	245.	53.76
04-17-82	0.	399.	0.	617.	1440.	15.	1.	104.	2.	446.	171.	5.	0.	0.	7.	3.	3.	-1037.	45.	53.72
04-18-82	53.	457.	0.	536.	1428.	13.	1.	60.	2.	393.	143.	5.	0.	0.	7.	3.	3.	-1180.	21.	53.65
04-19-82	36.	457.	0.	442.	1408.	13.	1.	37.	2.	335.	107.	5.	0.	0.	7.	3.	3.	-1127.	188.	53.60
04-20-82	0.	385.	0.	361.	1369.	14.	1.	27.	2.	282.	79.	5.	0.	0.	7.	3.	3.	-1270.	61.	53.54
04-21-82	0.	342.	0.	294.	1369.	15.	1.	22.	1.	236.	58.	5.	0.	0.	7.	3.	3.	-1313.	47.	53.47
04-22-82	0.	514.	0.	238.	1349.	14.	1.	19.	1.	196.	42.	5.	0.	0.	7.	3.	3.	-1647.	-76.	53.40
04-23-82	0.	357.	0.	238.	1365.	16.	1.	17.	1.	175.	63.	5.	0.	0.	7.	3.	3.	-1684.	-254.	53.30
04-24-82	71.	171.	0.	202.	1299.	16.	1.	14.	1.	161.	42.	5.	0.	0.	7.	3.	3.	-1294.	-147.	53.23
04-25-82	428.	185.	0.	169.	1234.	15.	1.	14.	1.	151.	18.	5.	0.	0.	7.	3.	3.	-668.	106.	53.16
04-26-82	1284.	257.	194.	186.	1220.	23.	4.	17.	1.	153.	34.	5.	0.	0.	7.	3.	3.	-95.	-346.	53.16
04-27-82	143.	128.	464.	179.	1228.	18.	1.	15.	1.	145.	34.	5.	0.	0.	7.	3.	3.	-525.	-7.	53.15
04-28-82	0.	457.	464.	157.	1224.	15.	1.	14.	1.	131.	26.	5.	0.	0.	7.	3.	3.	-856.	155.	53.10
04-29-82	18.	357.	464.	149.	1240.	15.	1.	13.	1.	121.	28.	5.	0.	0.	7.	3.	3.	-806.	112.	53.06
04-30-82	53.	385.	466.	141.	1250.	17.	1.	13.	1.	117.	24.	5.	0.	0.	7.	3.	3.	-946.	-21.	53.02
TOTAL:	7401.	10443.	2053.	10270.	44610.	498.	51.	857.	30.	6571.	3699.	163.	0.	9.	202.	83.	85.	-35139.	-1787.	

TOTAL INFLOW = 21702. ACRE-FT
TOTAL OUTFLOW = 55053. ACRE-FT
TOTAL SEEPAGE = 163. ACRE-FT
STORAGE CHANGE = -35139. ACRE-FT
RESIDUE INFLOW = -1787. ACRE-FT
MEAN LAKE STAGE = 53.76 FT
MEAN LAKE AREA = 19809. ACRE
MEAN LAKE VOLUME = 121378. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
05-01-82	0.	471.	464.	125.	1226.	16.	1.	11.	1.	109.	16.	6.	0.	0.	0.	0.	2.	-1037.	34.	52.96
05-02-82	0.	414.	464.	115.	1228.	13.	1.	10.	1.	107.	8.	6.	0.	0.	0.	0.	2.	-893.	136.	52.91
05-03-82	0.	314.	464.	123.	1240.	14.	1.	9.	1.	119.	4.	6.	0.	0.	0.	0.	2.	-797.	137.	52.87
05-04-82	0.	342.	462.	135.	1244.	16.	1.	8.	1.	131.	4.	6.	0.	0.	0.	0.	2.	-888.	67.	52.82
05-05-82	0.	457.	462.	149.	1246.	16.	1.	7.	1.	135.	14.	6.	0.	0.	0.	0.	2.	3635.	4694.	52.77
05-06-82	0.	442.	460.	137.	1232.	16.	1.	7.	1.	131.	6.	6.	0.	0.	0.	0.	2.	-1053.	-8.	53.21
05-07-82	0.	499.	458.	121.	1212.	16.	1.	6.	1.	123.	-2.	6.	0.	0.	0.	0.	2.	-5462.	-4361.	52.66
05-08-82	0.	328.	456.	107.	1198.	13.	1.	6.	1.	115.	-8.	6.	0.	0.	0.	0.	2.	-970.	-35.	52.62
05-09-82	0.	328.	458.	117.	1234.	11.	1.	5.	1.	105.	12.	6.	0.	0.	0.	0.	2.	-1104.	-142.	52.56
05-10-82	0.	428.	458.	107.	1238.	12.	1.	5.	1.	95.	12.	6.	0.	0.	0.	0.	2.	-1008.	66.	52.50
05-11-82	0.	528.	456.	95.	1214.	13.	1.	4.	1.	87.	8.	6.	0.	0.	0.	0.	2.	-959.	205.	52.45
05-12-82	0.	485.	454.	83.	1212.	13.	0.	4.	1.	79.	4.	6.	0.	0.	0.	0.	2.	-1002.	131.	52.40
05-13-82	0.	414.	454.	83.	1067.	14.	1.	4.	1.	71.	12.	6.	0.	0.	0.	0.	2.	-908.	9.	52.34
05-14-82	0.	556.	464.	73.	1014.	13.	0.	4.	1.	67.	6.	6.	0.	0.	0.	0.	2.	-905.	101.	52.30
05-15-82	0.	399.	341.	71.	1002.	12.	1.	4.	1.	63.	8.	6.	0.	0.	0.	0.	2.	-992.	-29.	52.24
05-16-82	0.	485.	325.	69.	998.	10.	1.	4.	1.	61.	8.	6.	0.	0.	0.	0.	2.	-944.	121.	52.19
05-17-82	0.	499.	325.	71.	998.	9.	1.	4.	1.	61.	10.	6.	0.	0.	0.	0.	2.	-941.	138.	52.13
05-18-82	0.	428.	323.	69.	1002.	9.	0.	4.	1.	58.	12.	6.	0.	0.	0.	0.	2.	-893.	122.	52.08
05-19-82	0.	471.	180.	69.	984.	10.	0.	4.	1.	58.	12.	6.	0.	0.	0.	0.	2.	-713.	470.	52.03
05-20-82	0.	485.	71.	69.	549.	9.	0.	4.	1.	56.	14.	6.	0.	0.	0.	0.	2.	-533.	339.	52.00
05-21-82	125.	485.	71.	77.	369.	11.	0.	4.	1.	54.	24.	6.	0.	0.	0.	0.	2.	-311.	246.	51.97
05-22-82	71.	228.	71.	73.	367.	11.	0.	4.	1.	54.	20.	6.	0.	0.	0.	0.	2.	-266.	89.	51.97
05-23-82	196.	585.	71.	71.	359.	18.	2.	8.	1.	56.	16.	6.	0.	0.	0.	0.	2.	-399.	170.	51.94
05-24-82	392.	128.	468.	71.	1379.	13.	1.	5.	1.	58.	14.	6.	0.	0.	0.	0.	2.	-929.	-381.	51.92
05-25-82	838.	314.	1023.	75.	2124.	10.	1.	4.	1.	58.	18.	6.	0.	0.	0.	0.	2.	-1144.	-666.	51.84
05-26-82	1391.	399.	1190.	81.	2164.	11.	1.	4.	1.	60.	22.	6.	0.	0.	0.	0.	2.	-614.	-738.	51.79
05-27-82	1052.	243.	1162.	89.	2132.	12.	3.	4.	1.	69.	20.	6.	0.	0.	0.	0.	2.	-482.	-438.	51.77
05-28-82	446.	243.	1166.	117.	2099.	15.	1.	4.	1.	89.	28.	6.	0.	0.	0.	0.	2.	-525.	59.	51.74
05-29-82	3870.	499.	1164.	173.	2037.	11.	12.	4.	1.	113.	60.	6.	0.	0.	0.	0.	2.	742.	-1964.	51.71
05-30-82	3317.	300.	1150.	313.	2019.	33.	21.	10.	1.	163.	151.	6.	0.	0.	0.	0.	2.	3692.	1157.	51.82
05-31-82	1819.	228.	1164.	490.	2099.	102.	33.	88.	9.	238.	252.	6.	0.	0.	0.	0.	2.	3629.	2243.	52.13
TOTAL:	13518.	12426.	16707.	3624.	39481.	501.	87.	251.	32.	2842.	781.	174.	0.	0.	15.	0.	51.	-14975.	1973.	

TOTAL INFLOW = 34960. ACRE-FT
TOTAL OUTFLOW = 51907. ACRE-FT
TOTAL SEEPAGE = 174. ACRE-FT
STORAGE CHANGE = -14975. ACRE-FT
RESIDUE INFLOW = 1973. ACRE-FT
MEAN LAKE STAGE = 52.28 FT
MEAN LAKE AREA = 18087. ACRE
MEAN LAKE VOLUME = 93504. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
06-01-82	1034.	143.	520.	440.	2291.	26.	1.	22.	17.	230.	210.	6.	16.	4.	3.	11.	4.	1487.	1816.	52.23
06-02-82	927.	428.	0.	407.	0.	16.	0.	17.	15.	248.	159.	6.	16.	4.	3.	11.	4.	1312.	314.	52.29
06-03-82	357.	143.	0.	419.	0.	14.	0.	16.	11.	278.	141.	6.	16.	4.	3.	11.	4.	1001.	282.	52.37
06-04-82	0.	257.	0.	440.	0.	14.	0.	14.	10.	300.	141.	6.	16.	4.	3.	11.	4.	592.	326.	52.40
06-05-82	178.	414.	0.	458.	0.	13.	0.	12.	8.	303.	155.	6.	16.	4.	3.	11.	4.	274.	-27.	52.44
06-06-82	0.	342.	0.	436.	0.	13.	0.	15.	7.	282.	155.	6.	16.	4.	3.	11.	4.	91.	-83.	52.43
06-07-82	0.	499.	0.	389.	0.	13.	0.	14.	7.	256.	133.	6.	16.	4.	3.	11.	4.	274.	306.	52.45
06-08-82	0.	542.	0.	343.	0.	14.	0.	12.	6.	238.	105.	6.	16.	4.	3.	11.	4.	91.	213.	52.46
06-09-82	0.	457.	0.	315.	0.	14.	0.	11.	5.	224.	91.	6.	16.	4.	3.	11.	4.	-137.	-70.	52.46
06-10-82	0.	271.	0.	288.	0.	12.	0.	9.	4.	208.	79.	6.	16.	4.	3.	11.	4.	-46.	-133.	52.45
06-11-82	18.	428.	0.	260.	0.	11.	0.	8.	3.	184.	75.	6.	16.	4.	3.	11.	4.	46.	129.	52.45
06-12-82	36.	357.	0.	230.	0.	11.	0.	9.	3.	167.	63.	6.	16.	4.	3.	11.	4.	0.	23.	52.45
06-13-82	0.	185.	0.	212.	0.	12.	0.	12.	3.	167.	46.	6.	16.	4.	3.	11.	4.	-46.	-144.	52.45
06-14-82	0.	271.	0.	212.	0.	9.	0.	12.	2.	171.	42.	6.	16.	4.	3.	11.	4.	0.	-8.	52.45
06-15-82	0.	457.	0.	198.	0.	10.	0.	12.	2.	163.	36.	6.	16.	4.	3.	11.	4.	91.	281.	52.45
06-16-82	303.	442.	0.	188.	0.	8.	0.	11.	1.	153.	36.	6.	16.	4.	3.	11.	4.	320.	205.	52.46
06-17-82	3584.	271.	0.	240.	0.	14.	7.	12.	2.	155.	85.	6.	16.	4.	3.	11.	4.	4488.	855.	52.49
06-18-82	5261.	300.	147.	1390.	0.	284.	156.	729.	16.	520.	871.	6.	16.	4.	3.	11.	4.	6782.	-946.	52.95
06-19-82	36.	314.	329.	1597.	0.	59.	0.	449.	26.	843.	754.	6.	16.	4.	3.	11.	4.	4259.	2033.	53.21
06-20-82	1694.	385.	331.	1523.	0.	92.	10.	480.	29.	1158.	365.	6.	16.	4.	3.	11.	4.	3727.	-93.	53.39
06-21-82	1748.	271.	738.	1736.	0.	58.	0.	449.	38.	1644.	91.	6.	16.	4.	3.	11.	4.	3136.	-1403.	53.59
06-22-82	125.	228.	1295.	1785.	2668.	34.	0.	333.	33.	1644.	141.	6.	16.	4.	3.	11.	4.	1333.	580.	53.71
06-23-82	285.	385.	1319.	1680.	3418.	23.	0.	240.	29.	1386.	294.	6.	16.	4.	3.	11.	4.	99.	281.	53.73
06-24-82	160.	428.	1234.	1474.	3713.	19.	0.	180.	25.	1077.	397.	6.	16.	4.	3.	11.	4.	-395.	609.	53.72
06-25-82	0.	171.	1236.	1305.	3646.	17.	0.	136.	22.	899.	407.	6.	16.	4.	3.	11.	4.	-690.	367.	53.69
06-26-82	749.	157.	1265.	1192.	3614.	16.	1.	103.	19.	789.	403.	6.	16.	4.	3.	11.	4.	-541.	-162.	53.65
06-27-82	18.	357.	1256.	1133.	3606.	16.	0.	84.	20.	708.	424.	6.	16.	4.	3.	11.	4.	-540.	851.	53.63
06-28-82	0.	371.	1142.	1045.	3606.	13.	0.	64.	27.	641.	405.	6.	16.	4.	3.	11.	4.	-735.	906.	53.60
06-29-82	0.	485.	1190.	960.	2551.	12.	0.	49.	25.	551.	409.	6.	16.	4.	3.	11.	4.	-196.	559.	53.56
06-30-82	0.	499.	1192.	881.	1916.	10.	0.	40.	22.	454.	426.	6.	16.	4.	3.	11.	4.	0.	226.	53.58
TOTAL:	16514.	10258.	13194.	23177.	31027.	878.	178.	3555.	436.	16040.	7137.	192.	488.	107.	92.	333.	130.	26078.	8093.	

TOTAL INFLOW = 59271. ACRE-FT
TOTAL OUTFLOW = 41285. ACRE-FT
TOTAL SEEPAGE = 192. ACRE-FT
STORAGE CHANGE = 26078. ACRE-FT
RESIDUE INFLOW = 8093. ACRE-FT
MEAN LAKE STAGE = 52.90 FT
MEAN LAKE AREA = 18792. ACRE
MEAN LAKE VOLUME = 104974. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
07-01-82	18.	471.	1137.	809.	1981.	8.	0.	35.	20.	359.	450.	7.	2.	2.	8.	3.	0.	-98.	306.	53.56
07-02-82	89.	428.	1105.	734.	1999.	12.	3.	34.	17.	288.	446.	7.	2.	2.	8.	3.	0.	98.	509.	53.57
07-03-82	0.	243.	1081.	722.	2043.	21.	3.	44.	16.	242.	480.	7.	2.	2.	8.	3.	0.	0.	378.	53.57
07-04-82	89.	300.	1031.	599.	2081.	26.	0.	44.	14.	212.	387.	7.	2.	2.	8.	3.	0.	-196.	360.	53.57
07-05-82	1748.	314.	1023.	680.	2073.	27.	50.	42.	13.	210.	470.	7.	2.	2.	8.	3.	0.	195.	-1023.	53.55
07-06-82	303.	314.	1117.	811.	1545.	22.	0.	44.	12.	220.	591.	7.	2.	2.	8.	3.	0.	833.	360.	53.59
07-07-82	553.	271.	1341.	657.	1198.	19.	0.	37.	13.	210.	446.	7.	2.	2.	8.	3.	0.	1081.	-91.	53.63
07-08-82	1070.	243.	1232.	686.	1545.	18.	0.	34.	15.	216.	470.	7.	2.	2.	8.	3.	0.	986.	-303.	53.70
07-09-82	250.	243.	952.	649.	1878.	17.	0.	32.	17.	218.	430.	7.	2.	2.	8.	3.	0.	395.	579.	53.73
07-10-82	0.	414.	899.	524.	1960.	13.	0.	28.	17.	210.	313.	7.	2.	2.	8.	3.	0.	-99.	773.	53.74
07-11-82	0.	385.	891.	464.	1970.	10.	0.	25.	16.	196.	268.	7.	2.	2.	8.	3.	0.	-346.	582.	53.72
07-12-82	802.	485.	873.	409.	1981.	10.	0.	22.	15.	179.	230.	7.	2.	2.	8.	3.	0.	-493.	-179.	53.70
07-13-82	321.	471.	1137.	357.	1976.	10.	0.	19.	14.	157.	200.	7.	2.	2.	8.	3.	0.	-394.	174.	53.67
07-14-82	0.	385.	758.	321.	1275.	11.	0.	17.	14.	141.	180.	7.	2.	2.	8.	3.	0.	-246.	273.	53.66
07-15-82	18.	442.	137.	288.	536.	10.	0.	16.	13.	123.	165.	7.	2.	2.	8.	3.	0.	0.	475.	53.65
07-16-82	482.	385.	0.	254.	365.	10.	0.	15.	13.	111.	143.	7.	2.	2.	8.	3.	0.	394.	350.	53.66
07-17-82	125.	228.	0.	228.	367.	10.	0.	14.	13.	105.	123.	7.	2.	2.	8.	3.	0.	197.	382.	53.69
07-18-82	375.	328.	0.	244.	367.	8.	0.	14.	12.	101.	143.	7.	2.	2.	8.	3.	0.	99.	120.	53.68
07-19-82	713.	371.	177.	238.	635.	25.	11.	17.	12.	117.	121.	7.	2.	2.	8.	3.	0.	641.	433.	53.70
07-20-82	2033.	385.	490.	510.	815.	158.	94.	163.	17.	194.	315.	7.	2.	2.	8.	3.	0.	1089.	-1197.	53.75
07-21-82	160.	927.	631.	940.	1150.	126.	0.	65.	19.	258.	682.	7.	2.	2.	8.	3.	0.	149.	263.	53.81
07-22-82	53.	314.	633.	651.	1789.	40.	0.	25.	19.	198.	452.	7.	2.	2.	8.	3.	0.	-891.	-231.	53.76
07-23-82	1284.	585.	714.	621.	2402.	28.	0.	20.	19.	194.	426.	7.	2.	2.	8.	3.	0.	49.	328.	53.72
07-24-82	713.	399.	778.	875.	2444.	28.	2.	22.	20.	230.	645.	7.	2.	2.	8.	3.	0.	-50.	334.	53.77
07-25-82	553.	357.	789.	879.	2386.	54.	1.	31.	19.	272.	607.	7.	2.	2.	8.	3.	0.	-938.	-543.	53.71
07-26-82	838.	328.	1091.	873.	2249.	62.	0.	37.	17.	351.	522.	7.	2.	2.	8.	3.	0.	-788.	-1150.	53.67
07-27-82	2104.	371.	1139.	895.	2731.	37.	5.	31.	16.	454.	440.	7.	2.	2.	8.	3.	0.	-393.	-1539.	53.63
07-28-82	232.	499.	974.	1047.	2813.	46.	3.	29.	15.	591.	456.	7.	2.	2.	8.	3.	0.	-98.	846.	53.63
07-29-82	285.	257.	976.	1077.	2771.	50.	1.	27.	14.	599.	478.	7.	2.	2.	8.	3.	0.	-196.	380.	53.62
07-30-82	53.	300.	932.	1027.	2761.	50.	0.	24.	13.	551.	476.	7.	2.	2.	8.	3.	0.	-393.	546.	53.61
07-31-82	18.	371.	970.	918.	2749.	36.	0.	22.	13.	460.	458.	7.	2.	2.	8.	3.	0.	-784.	339.	53.58
TOTAL:	15283.	25004.	54835.	174.	478.	12016.	61.	253.	0.	2837.	11813.	19985.	1002.	1028.	7970.	209.	47.	90.	-196.	

TOTAL INFLOW = 63615. ACRE-FT
TOTAL OUTFLOW = 66648. ACRE-FT
TOTAL SEEPAGE = 209. ACRE-FT
STORAGE CHANGE = -196. ACRE-FT
RESIDUE INFLOW = 2837. ACRE-FT
MEAN LAKE STAGE = 53.66 FT
MEAN LAKE AREA = 19689. ACRE
MEAN LAKE VOLUME = 119480. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
08-01-82	107.	399.	956.	823.	2725.	29.	0.	19.	12.	381.	442.	7.	0.	6.	8.	3.	1.	-683.	470.	53.53
08-02-82	18.	371.	1071.	754.	2172.	27.	0.	21.	12.	319.	434.	7.	0.	6.	8.	3.	1.	-390.	226.	53.51
08-03-82	178.	285.	1146.	653.	1841.	27.	0.	31.	11.	272.	381.	7.	0.	6.	8.	3.	1.	-146.	-92.	53.49
08-04-82	535.	499.	1139.	543.	1908.	23.	0.	23.	11.	236.	307.	7.	0.	6.	8.	3.	1.	0.	108.	53.50
08-05-82	267.	342.	633.	484.	1152.	22.	2.	22.	10.	216.	268.	7.	0.	6.	8.	3.	1.	146.	176.	53.49
08-06-82	802.	214.	321.	478.	706.	24.	0.	19.	8.	216.	262.	7.	0.	6.	8.	3.	1.	536.	-221.	53.51
08-07-82	0.	314.	323.	450.	724.	50.	0.	18.	9.	218.	232.	7.	0.	6.	8.	3.	1.	831.	993.	53.55
08-08-82	749.	300.	321.	422.	748.	32.	0.	17.	12.	224.	198.	7.	0.	6.	8.	3.	1.	539.	8.	53.60
08-09-82	0.	399.	321.	405.	764.	20.	0.	20.	13.	226.	179.	7.	0.	6.	8.	3.	1.	98.	458.	53.60
08-10-82	1320.	471.	139.	413.	785.	24.	0.	19.	13.	216.	196.	7.	0.	6.	8.	3.	1.	294.	-402.	53.61
08-11-82	767.	385.	0.	417.	803.	25.	0.	18.	14.	204.	212.	7.	0.	6.	8.	3.	1.	147.	71.	53.63
08-12-82	731.	214.	198.	387.	1115.	18.	0.	16.	14.	190.	196.	7.	0.	6.	8.	3.	1.	-245.	-306.	53.62
08-13-82	0.	399.	323.	478.	1261.	18.	0.	14.	14.	190.	288.	7.	0.	6.	8.	3.	1.	-392.	397.	53.61
08-14-82	125.	371.	325.	440.	1271.	15.	0.	13.	13.	208.	232.	7.	0.	6.	8.	3.	1.	-294.	391.	53.58
08-15-82	303.	257.	325.	587.	1279.	19.	0.	20.	14.	290.	298.	7.	0.	6.	8.	3.	1.	-147.	95.	53.58
08-16-82	0.	285.	504.	803.	1279.	23.	0.	31.	15.	420.	383.	7.	0.	6.	8.	3.	1.	-98.	66.	53.57
08-17-82	1141.	357.	645.	904.	1289.	23.	12.	31.	16.	538.	367.	7.	0.	6.	8.	3.	1.	342.	-809.	53.57
08-18-82	375.	613.	647.	1160.	1287.	30.	0.	37.	16.	595.	565.	7.	0.	6.	8.	3.	1.	588.	199.	53.60
08-19-82	18.	385.	770.	1194.	1523.	20.	0.	33.	16.	581.	613.	7.	0.	6.	8.	3.	1.	98.	-69.	53.63
08-20-82	428.	171.	926.	1131.	1757.	24.	2.	36.	16.	571.	559.	7.	0.	6.	8.	3.	1.	294.	-365.	53.61
08-21-82	802.	342.	932.	1127.	1747.	49.	1.	97.	20.	617.	510.	7.	0.	6.	8.	3.	1.	738.	-226.	53.66
08-22-82	482.	300.	940.	1142.	1743.	23.	0.	66.	21.	688.	454.	7.	0.	6.	8.	3.	1.	345.	-310.	53.69
08-23-82	196.	342.	1214.	1162.	2622.	21.	0.	54.	22.	734.	428.	7.	0.	6.	8.	3.	1.	-493.	-223.	53.69
08-24-82	0.	357.	1533.	1158.	3334.	23.	0.	46.	21.	720.	438.	7.	0.	6.	8.	3.	1.	-1032.	-147.	53.64
08-25-82	71.	399.	1531.	1111.	3300.	26.	0.	48.	19.	668.	442.	7.	0.	6.	8.	3.	1.	-1225.	-356.	53.59
08-26-82	0.	471.	1531.	1081.	3241.	27.	0.	43.	18.	401.	680.	7.	0.	6.	8.	3.	1.	-1365.	-379.	53.51
08-27-82	36.	328.	1525.	1077.	3209.	19.	0.	34.	16.	510.	567.	7.	0.	6.	8.	3.	1.	-1166.	-362.	53.45
08-28-82	178.	371.	1519.	1006.	3120.	18.	0.	72.	15.	460.	545.	7.	0.	6.	8.	3.	1.	-1065.	-408.	53.39
08-29-82	0.	328.	1507.	984.	3066.	18.	0.	50.	14.	442.	541.	7.	0.	6.	8.	3.	1.	-916.	-121.	53.34
08-30-82	18.	371.	1464.	912.	3299.	18.	0.	41.	13.	440.	472.	7.	0.	6.	8.	3.	1.	433.	1611.	53.30
08-31-82	53.	457.	1432.	885.	1051.	16.	0.	34.	13.	422.	462.	7.	0.	6.	8.	3.	1.	1838.	887.	53.38
TOTAL:	9701.	26164.	56126.	17.	452.	12155.	12.	253.	23.	1361.	11099.	24571.	752.	1045.	12417.	208.	186.	92.	-2388.	

TOTAL INFLOW = 63477. ACRE-FT
TOTAL OUTFLOW = 67226. ACRE-FT
TOTAL SEEPAGE = 208. ACRE-FT
STORAGE CHANGE = -2388. ACRE-FT
RESIDUE INFLOW = 1361. ACRE-FT
MEAN LAKE STAGE = 53.55 FT
MEAN LAKE AREA = 19548. ACRE
MEAN LAKE VOLUME = 117226. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
09-01-82	18.	200.	1137.	877.	0.	15.	0.	31.	13.	389.	488.	6.	22.	0.	40.	10.	0.	1801.	-168.	53.49
09-02-82	0.	314.	341.	843.	0.	15.	0.	28.	12.	341.	502.	6.	22.	0.	40.	10.	0.	1076.	72.	53.57
09-03-82	0.	357.	0.	742.	0.	14.	0.	26.	12.	294.	448.	6.	22.	0.	40.	10.	0.	343.	-173.	53.60
09-04-82	0.	385.	0.	625.	0.	14.	0.	23.	11.	250.	375.	6.	22.	0.	40.	10.	0.	98.	-269.	53.60
09-05-82	375.	357.	0.	541.	0.	36.	2.	128.	11.	232.	309.	6.	22.	0.	40.	10.	0.	392.	-423.	53.61
09-06-82	375.	528.	0.	647.	0.	73.	0.	381.	11.	244.	403.	6.	22.	0.	40.	10.	0.	836.	-201.	53.64
09-07-82	3049.	214.	0.	593.	0.	52.	1.	235.	10.	216.	377.	6.	22.	0.	40.	10.	0.	1677.	-2128.	53.69
09-08-82	1890.	357.	0.	768.	0.	37.	0.	139.	10.	224.	543.	6.	22.	0.	40.	10.	0.	1938.	-628.	53.81
09-09-82	143.	228.	0.	807.	738.	33.	0.	110.	7.	230.	577.	6.	22.	0.	40.	10.	0.	849.	635.	53.89
09-10-82	1338.	314.	0.	821.	1212.	78.	27.	324.	6.	264.	557.	6.	22.	0.	40.	10.	0.	400.	-748.	53.90
09-11-82	89.	285.	0.	1069.	1214.	152.	0.	748.	6.	426.	643.	6.	22.	0.	40.	10.	0.	200.	-443.	53.93
09-12-82	89.	328.	0.	972.	1208.	73.	0.	506.	5.	381.	591.	6.	22.	0.	40.	10.	0.	-300.	-488.	53.92
09-13-82	89.	243.	635.	910.	1226.	42.	0.	399.	5.	387.	524.	6.	22.	0.	40.	10.	0.	-300.	-991.	53.90
09-14-82	0.	528.	641.	1293.	1212.	30.	0.	297.	4.	**********		6.	22.	0.	40.	10.	0.	-150.	-754.	53.89
09-15-82	0.	228.	639.	1133.	1202.	25.	0.	214.	3.	**********		6.	22.	0.	40.	10.	0.	-100.	-762.	53.88
09-16-82	0.	485.	639.	1010.	1202.	21.	0.	151.	3.	**********		6.	22.	0.	40.	10.	0.	-100.	-315.	53.88
09-17-82	0.	314.	272.	918.	446.	19.	0.	106.	2.	**********		6.	22.	0.	40.	10.	0.	100.	-537.	53.87
09-18-82	18.	399.	0.	839.	0.	17.	0.	77.	2.	**********		6.	22.	0.	40.	10.	0.	399.	-233.	53.89
09-19-82	321.	285.	0.	772.	0.	27.	17.	60.	1.	**********		6.	22.	0.	40.	10.	0.	800.	-191.	53.91
09-20-82	375.	300.	0.	738.	0.	28.	1.	51.	1.	**********		6.	22.	0.	40.	10.	0.	1405.	431.	53.97
09-21-82	999.	314.	0.	1293.	0.	54.	8.	101.	3.	**********		6.	22.	0.	40.	10.	0.	1665.	-558.	54.05
09-22-82	1177.	29.	474.	1724.	0.	62.	2.	161.	5.	**********		6.	22.	0.	40.	10.	0.	963.	-2692.	54.13
09-23-82	160.	57.	926.	2110.	811.	49.	0.	162.	6.	**********		6.	22.	0.	40.	10.	0.	203.	-2422.	54.15
09-24-82	36.	200.	762.	2154.	1198.	37.	0.	138.	6.	**********		6.	22.	0.	40.	10.	0.	305.	-1510.	54.15
09-25-82	767.	185.	647.	1981.	1014.	32.	1.	115.	7.	**********		6.	22.	0.	40.	10.	0.	2136.	-294.	54.18
09-26-82	3691.	214.	641.	2858.	1000.	175.	47.	510.	18.	**********		6.	22.	0.	40.	10.	0.	3191.	-3615.	54.36
09-27-82	0.	228.	964.	3560.	1880.	84.	0.	334.	24.	**********		6.	22.	0.	40.	10.	0.	1349.	-1587.	54.49
09-28-82	0.	285.	1369.	3289.	2638.	48.	0.	265.	27.	**********		6.	22.	0.	40.	10.	0.	104.	-2049.	54.49
09-29-82	0.	371.	1014.	2983.	2648.	36.	0.	209.	26.	**********		6.	22.	0.	40.	10.	0.	-52.	-1379.	54.50
09-30-82	499.	342.	1337.	2563.	2602.	32.	1.	159.	24.	**********		6.	22.	0.	40.	10.	0.	156.	-1594.	54.49
TOTAL:	15497.	8874.	12434.	41433.	23451.	1409.	107.	6190.	281.	**********		666.	193.	1206.	0.	302.	3.	21384.	-26013.	

TOTAL INFLOW = 79721. ACRE-FT
TOTAL OUTFLOW = 32324. ACRE-FT
TOTAL SEEPAGE = 193. ACRE-FT
STORAGE CHANGE = 21384. ACRE-FT
RESIDUE INFLOW = -26013. ACRE-FT
MEAN LAKE STAGE = 53.96 FT
MEAN LAKE AREA = 20060. ACRE
MEAN LAKE VOLUME = 125346. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
10-01-82	1123.	300.	1089.	855.	2057.	30.	0.	126.	24.	385.	470.	6.	10.	5.	35.	9.	5.	1196.	234.	54.51
10-02-82	196.	257.	847.	855.	1704.	26.	1.	100.	23.	353.	502.	6.	10.	5.	35.	9.	5.	1046.	888.	54.60
10-03-82	0.	328.	857.	855.	1682.	24.	0.	81.	21.	327.	528.	6.	10.	5.	35.	9.	5.	52.	155.	54.61
10-04-82	0.	157.	863.	855.	1954.	22.	0.	65.	19.	301.	553.	6.	10.	5.	35.	9.	5.	105.	321.	54.61
10-05-82	3192.	314.	514.	855.	1835.	90.	17.	142.	18.	301.	553.	6.	10.	5.	35.	9.	5.	2409.	-341.	54.62
10-06-82	517.	357.	127.	855.	1666.	163.	3.	198.	19.	482.	373.	6.	10.	5.	35.	9.	5.	2709.	2779.	54.84
10-07-82	18.	399.	0.	855.	1656.	65.	0.	91.	19.	466.	389.	6.	10.	5.	35.	9.	5.	320.	1257.	54.88
10-08-82	0.	257.	0.	855.	1668.	42.	0.	70.	18.	415.	440.	6.	10.	5.	35.	9.	5.	-426.	444.	54.87
10-09-82	0.	314.	0.	855.	1660.	32.	0.	59.	17.	407.	448.	6.	10.	5.	35.	9.	5.	-797.	144.	54.84
10-10-82	36.	285.	0.	855.	1654.	28.	0.	52.	15.	411.	444.	6.	10.	5.	35.	9.	5.	-741.	142.	54.79
10-11-82	89.	285.	0.	855.	1019.	25.	0.	48.	15.	397.	458.	6.	10.	5.	35.	9.	5.	-211.	-9.	54.77
10-12-82	0.	357.	0.	855.	222.	24.	0.	45.	13.	367.	488.	6.	10.	5.	35.	9.	5.	370.	-58.	54.77
10-13-82	0.	342.	0.	855.	0.	23.	0.	42.	12.	327.	528.	6.	10.	5.	35.	9.	5.	689.	29.	54.80
10-14-82	0.	271.	0.	855.	4.	22.	0.	39.	11.	290.	565.	6.	10.	5.	35.	9.	5.	425.	-298.	54.84
10-15-82	0.	143.	0.	855.	202.	22.	0.	36.	10.	258.	597.	6.	10.	5.	35.	9.	5.	-53.	-702.	54.84
10-16-82	0.	371.	0.	855.	353.	20.	0.	34.	9.	230.	625.	6.	10.	5.	35.	9.	5.	-266.	-530.	54.83
10-17-82	0.	57.	0.	855.	363.	19.	0.	32.	9.	210.	645.	6.	10.	5.	35.	9.	5.	-265.	-830.	54.82
10-18-82	0.	228.	0.	855.	373.	19.	0.	30.	8.	192.	662.	6.	10.	5.	35.	9.	5.	-265.	-646.	54.81
10-19-82	18.	257.	0.	855.	518.	18.	0.	28.	7.	179.	676.	6.	10.	5.	35.	9.	5.	-371.	-593.	54.79
10-20-82	0.	314.	0.	855.	605.	19.	0.	27.	7.	167.	688.	6.	10.	5.	35.	9.	5.	-370.	-429.	54.77
10-21-82	0.	243.	0.	855.	599.	19.	0.	25.	6.	155.	700.	6.	10.	5.	35.	9.	5.	-476.	-610.	54.76
10-22-82	0.	271.	0.	855.	879.	17.	0.	23.	6.	149.	706.	6.	10.	5.	35.	9.	5.	-844.	-666.	54.73
10-23-82	357.	271.	0.	855.	1073.	18.	1.	20.	6.	145.	710.	6.	10.	5.	35.	9.	5.	-893.	-875.	54.68
10-24-82	0.	86.	0.	855.	1079.	19.	0.	18.	6.	139.	716.	6.	10.	5.	35.	9.	5.	-786.	-590.	54.64
10-25-82	0.	114.	0.	855.	420.	17.	0.	17.	5.	135.	720.	6.	10.	5.	35.	9.	5.	-418.	-848.	54.60
10-26-82	0.	200.	0.	855.	0.	16.	0.	17.	5.	129.	726.	6.	10.	5.	35.	9.	5.	52.	-711.	54.60
10-27-82	0.	200.	0.	855.	0.	16.	0.	16.	5.	123.	732.	6.	10.	5.	35.	9.	5.	0.	-762.	54.61
10-28-82	0.	228.	0.	855.	0.	16.	0.	15.	4.	119.	736.	6.	10.	5.	35.	9.	5.	0.	-732.	54.60
10-29-82	0.	257.	0.	855.	0.	16.	0.	15.	4.	117.	738.	6.	10.	5.	35.	9.	5.	157.	-546.	54.61
10-30-82	0.	243.	0.	855.	0.	15.	0.	15.	4.	115.	740.	6.	10.	5.	35.	9.	5.	209.	-506.	54.62
10-31-82	36.	185.	0.	855.	0.	14.	0.	14.	4.	111.	744.	6.	10.	5.	35.	9.	5.	262.	-545.	54.63
TOTAL:	5582.		4296.		25246.		22.		350.		18601.		317.		1082.		161.		-5436.	
		7889.		26501.		917.		1537.		7900.		186.		166.		271.		2817.		

TOTAL INFLOW = 41388. ACRE-FT
TOTAL OUTFLOW = 33135. ACRE-FT
TOTAL SEEPAGE = 186. ACRE-FT
STORAGE CHANGE = 2817. ACRE-FT
RESIDUE INFLOW = -5436. ACRE-FT
MEAN LAKE STAGE = 54.72 FT
MEAN LAKE AREA = 21079. ACRE
MEAN LAKE VOLUME = 140943. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
11-01-82	71.	71.	0.	204.	0.	16.	0.	15.	4.	109.	95.	5.	2.	0.	12.	3.	0.	367.	106.	54.64
11-02-82	446.	171.	0.	204.	0.	17.	0.	15.	4.	109.	95.	5.	2.	0.	12.	3.	0.	472.	-64.	54.66
11-03-82	499.	171.	0.	204.	0.	22.	0.	14.	4.	153.	52.	5.	2.	0.	12.	3.	0.	473.	-120.	54.69
11-04-82	71.	100.	0.	204.	0.	19.	0.	13.	4.	171.	34.	5.	2.	0.	12.	3.	0.	158.	-75.	54.71
11-05-82	0.	114.	0.	204.	2.	17.	0.	13.	3.	163.	42.	5.	2.	0.	12.	3.	0.	-263.	-407.	54.70
11-06-82	0.	214.	0.	204.	2.	15.	0.	13.	2.	151.	54.	5.	2.	0.	12.	3.	0.	-315.	-357.	54.68
11-07-82	0.	14.	0.	204.	0.	14.	0.	13.	2.	143.	61.	5.	2.	0.	12.	3.	0.	53.	-189.	54.67
11-08-82	0.	385.	0.	204.	0.	14.	0.	13.	2.	137.	67.	5.	2.	0.	12.	3.	0.	158.	288.	54.69
11-09-82	0.	185.	0.	204.	0.	16.	0.	13.	1.	131.	73.	5.	2.	0.	12.	3.	0.	105.	34.	54.69
11-10-82	0.	214.	0.	204.	0.	15.	0.	12.	1.	123.	81.	5.	2.	0.	12.	3.	0.	210.	170.	54.70
11-11-82	0.	228.	0.	204.	0.	16.	0.	12.	1.	117.	87.	5.	2.	0.	12.	3.	0.	158.	130.	54.71
11-12-82	0.	257.	0.	204.	0.	17.	0.	12.	1.	109.	95.	5.	2.	0.	12.	3.	0.	105.	106.	54.71
11-13-82	36.	214.	0.	204.	0.	16.	0.	12.	1.	105.	99.	5.	2.	0.	12.	3.	0.	-53.	-130.	54.72
11-14-82	0.	200.	0.	204.	0.	14.	0.	12.	1.	101.	103.	5.	2.	0.	12.	3.	0.	-53.	-106.	54.71
11-15-82	0.	157.	0.	204.	0.	15.	0.	7.	1.	99.	105.	5.	2.	0.	12.	3.	0.	0.	-92.	54.71
11-16-82	53.	128.	0.	204.	0.	16.	0.	12.	1.	95.	109.	5.	2.	0.	12.	3.	0.	53.	-127.	54.71
11-17-82	53.	143.	0.	204.	0.	15.	0.	12.	1.	93.	111.	5.	2.	0.	12.	3.	0.	158.	-8.	54.72
11-18-82	0.	214.	0.	204.	0.	16.	0.	12.	1.	91.	113.	5.	2.	0.	12.	3.	0.	0.	-41.	54.72
11-19-82	0.	200.	0.	204.	0.	16.	0.	10.	1.	91.	113.	5.	2.	0.	12.	3.	0.	105.	52.	54.72
11-20-82	0.	214.	0.	204.	0.	15.	0.	10.	1.	87.	117.	5.	2.	0.	12.	3.	0.	105.	67.	54.73
11-21-82	0.	185.	0.	204.	0.	15.	0.	10.	1.	85.	119.	5.	2.	0.	12.	3.	0.	-53.	-120.	54.73
11-22-82	0.	228.	0.	204.	0.	14.	0.	10.	1.	85.	119.	5.	2.	0.	12.	3.	0.	0.	-24.	54.73
11-23-82	0.	200.	0.	204.	0.	16.	0.	9.	1.	81.	123.	5.	2.	0.	12.	3.	0.	0.	-53.	54.73
11-24-82	0.	185.	0.	204.	0.	14.	0.	10.	1.	77.	127.	5.	2.	0.	12.	3.	0.	105.	40.	54.73
11-25-82	0.	185.	0.	204.	0.	13.	0.	9.	1.	75.	129.	5.	2.	0.	12.	3.	0.	53.	-11.	54.74
11-26-82	0.	228.	0.	204.	0.	12.	0.	9.	1.	75.	129.	5.	2.	0.	12.	3.	0.	-158.	-178.	54.73
11-27-82	0.	185.	0.	204.	0.	11.	0.	9.	1.	75.	129.	5.	2.	0.	12.	3.	0.	0.	-62.	54.72
11-28-82	0.	300.	0.	204.	0.	12.	0.	9.	1.	75.	129.	5.	2.	0.	12.	3.	0.	158.	209.	54.73
11-29-82	0.	114.	0.	204.	0.	13.	0.	9.	1.	75.	129.	5.	2.	0.	12.	3.	0.	53.	-83.	54.74
11-30-82	0.	271.	0.	204.	0.	14.	0.	9.	1.	73.	131.	5.	2.	0.	12.	3.	0.	-53.	-32.	54.74
TOTAL:	1230.	5678.	0.	6129.	4.	457.	0.	338.	42.	3158.	2971.	156.	65.	0.	351.	88.	3.	2103.	-1074.	

TOTAL INFLOW = 8859. ACRE-FT
TOTAL OUTFLOW = 5682. ACRE-FT
TOTAL SEEPAGE = 156. ACRE-FT
STORAGE CHANGE = 2103. ACRE-FT
RESIDUE INFLOW = -1074. ACRE-FT
MEAN LAKE STAGE = 54.71 FT
MEAN LAKE AREA = 21066. ACRE
MEAN LAKE VOLUME = 140751. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
12-01-82	0.	157.	0.	139.	0.	13.	0.	9.	1.	73.	65.	5.	1.	1.	2.	0.	0.	0.	-15.	54.73
12-02-82	0.	143.	0.	143.	0.	13.	0.	9.	1.	73.	69.	5.	1.	1.	2.	0.	0.	0.	-32.	54.74
12-03-82	0.	271.	0.	141.	0.	13.	0.	8.	1.	73.	67.	5.	1.	1.	2.	0.	0.	-105.	-7.	54.73
12-04-82	0.	271.	0.	141.	0.	13.	0.	8.	1.	73.	67.	5.	1.	1.	2.	0.	0.	-53.	46.	54.73
12-05-82	0.	300.	0.	129.	0.	12.	0.	8.	1.	73.	56.	5.	1.	1.	2.	0.	0.	-105.	35.	54.73
12-06-82	0.	214.	0.	141.	0.	10.	0.	8.	1.	73.	67.	5.	1.	1.	2.	0.	0.	-0.	44.	54.72
12-07-82	160.	171.	0.	149.	0.	11.	0.	8.	1.	73.	75.	5.	1.	1.	2.	0.	0.	105.	-63.	54.73
12-08-82	18.	171.	0.	157.	0.	19.	0.	11.	1.	77.	79.	5.	1.	1.	2.	0.	0.	264.	220.	54.73
12-09-82	0.	171.	0.	155.	0.	17.	0.	16.	1.	81.	73.	5.	1.	1.	2.	0.	0.	211.	185.	54.75
12-10-82	107.	143.	0.	145.	0.	16.	0.	15.	1.	83.	61.	5.	1.	1.	2.	0.	0.	53.	-98.	54.75
12-11-82	0.	114.	0.	127.	0.	17.	0.	14.	1.	89.	38.	5.	1.	1.	2.	0.	0.	423.	368.	54.76
12-12-82	963.	200.	0.	151.	6.	16.	0.	12.	1.	93.	58.	5.	1.	1.	2.	0.	0.	-53.	-1000.	54.79
12-13-82	0.	143.	0.	169.	6.	18.	0.	10.	1.	93.	75.	5.	1.	1.	2.	0.	0.	-423.	-481.	54.75
12-14-82	0.	171.	0.	153.	0.	16.	0.	10.	1.	91.	61.	5.	1.	1.	2.	0.	0.	-106.	-123.	54.75
12-15-82	0.	100.	0.	141.	0.	14.	0.	10.	1.	89.	52.	5.	1.	1.	2.	0.	0.	211.	136.	54.74
12-16-82	464.	228.	0.	155.	2.	20.	1.	11.	1.	89.	65.	5.	1.	1.	2.	0.	0.	423.	-7.	54.77
12-17-82	214.	57.	0.	173.	4.	21.	0.	12.	1.	89.	83.	5.	1.	1.	2.	0.	0.	53.	-316.	54.78
12-18-82	0.	185.	0.	161.	2.	16.	0.	11.	1.	83.	77.	5.	1.	1.	2.	0.	0.	-106.	-116.	54.77
12-19-82	0.	100.	0.	139.	0.	14.	0.	11.	1.	79.	60.	5.	1.	1.	2.	0.	0.	-53.	-126.	54.77
12-20-82	0.	128.	0.	149.	0.	14.	0.	10.	1.	77.	71.	5.	1.	1.	2.	0.	0.	-106.	-160.	54.77
12-21-82	0.	185.	0.	143.	0.	15.	0.	10.	1.	75.	67.	5.	1.	1.	2.	0.	0.	0.	8.	54.76
12-22-82	0.	157.	0.	143.	0.	17.	0.	9.	1.	71.	71.	5.	1.	1.	2.	0.	0.	-53.	-75.	54.77
12-23-82	0.	185.	0.	139.	0.	17.	0.	9.	1.	71.	67.	5.	1.	1.	2.	0.	0.	-53.	-43.	54.76
12-24-82	0.	128.	0.	137.	0.	15.	0.	9.	1.	71.	65.	5.	1.	1.	2.	0.	0.	211.	168.	54.76
12-25-82	0.	214.	0.	143.	0.	14.	0.	9.	1.	71.	71.	5.	1.	1.	2.	0.	0.	212.	250.	54.78
12-26-82	0.	214.	0.	135.	0.	13.	0.	9.	1.	71.	63.	5.	1.	1.	2.	0.	0.	53.	100.	54.78
12-27-82	0.	228.	0.	139.	0.	14.	0.	8.	1.	71.	67.	5.	1.	1.	2.	0.	0.	106.	162.	54.78
12-28-82	0.	128.	0.	135.	0.	17.	0.	8.	1.	71.	63.	5.	1.	1.	2.	0.	0.	53.	11.	54.79
12-29-82	0.	200.	0.	129.	0.	15.	0.	8.	1.	69.	60.	5.	1.	1.	2.	0.	0.	0.	38.	54.79
12-30-82	0.	128.	0.	131.	0.	15.	0.	8.	1.	69.	61.	5.	1.	1.	2.	0.	0.	106.	70.	54.79
12-31-82	0.	143.	0.	143.	2.	15.	0.	8.	1.	73.	69.	5.	1.	1.	2.	0.	0.	0.	-31.	54.80
TOTAL:	1926.	5350.	0.	4469.	22.	471.	1.	306.	25.	2418.	2051.	151.	46.	25.	57.	14.	3.	1269.	-853.	

TOTAL INFLOW = 7494. ACRE-FT
TOTAL OUTFLOW = 5372. ACRE-FT
TOTAL SEEPAGE = 151. ACRE-FT
STORAGE CHANGE = 1269. ACRE-FT
RESIDUE INFLOW = -853. ACRE-FT
MEAN LAKE STAGE = 54.76 FT
MEAN LAKE AREA = 21137. ACRE
MEAN LAKE VOLUME = 141799. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
01-01-83	0.	86.	0.	143.	2.	14.	0.	8.	13.	77.	65.	4.	1.	1.	2.	1.	7.	53.	-54.	54.79
01-02-83	0.	114.	0.	131.	2.	13.	0.	8.	13.	77.	54.	4.	1.	1.	2.	1.	7.	53.	-12.	54.80
01-03-83	0.	128.	0.	143.	2.	14.	0.	8.	13.	77.	65.	4.	1.	1.	2.	1.	7.	-106.	-170.	54.80
01-04-83	0.	114.	0.	157.	4.	17.	0.	8.	12.	73.	83.	4.	1.	1.	2.	1.	7.	-106.	-198.	54.79
01-05-83	18.	143.	0.	137.	2.	17.	0.	8.	11.	71.	65.	4.	1.	1.	2.	1.	7.	-53.	-115.	54.79
01-06-83	18.	29.	0.	139.	2.	16.	0.	8.	11.	71.	67.	4.	1.	1.	2.	1.	7.	-106.	-283.	54.79
01-07-83	0.	143.	0.	135.	2.	17.	0.	7.	10.	69.	65.	4.	1.	1.	2.	1.	7.	-106.	-146.	54.78
01-08-83	0.	57.	0.	137.	2.	16.	0.	7.	10.	67.	69.	4.	1.	1.	2.	1.	7.	53.	-74.	54.78
01-09-83	0.	171.	0.	129.	0.	15.	0.	7.	10.	67.	61.	4.	1.	1.	2.	1.	7.	106.	100.	54.78
01-10-83	89.	128.	0.	135.	0.	15.	0.	7.	10.	67.	67.	4.	1.	1.	2.	1.	7.	106.	-38.	54.79
01-11-83	36.	86.	0.	145.	2.	16.	0.	7.	9.	67.	77.	4.	1.	1.	2.	1.	7.	-53.	-195.	54.79
01-12-83	0.	143.	0.	155.	6.	17.	0.	7.	8.	65.	89.	4.	1.	1.	2.	1.	7.	-265.	-320.	54.78
01-13-83	0.	214.	0.	139.	2.	18.	0.	7.	8.	63.	75.	4.	1.	1.	2.	1.	7.	-211.	-184.	54.77
01-14-83	0.	143.	0.	135.	0.	18.	0.	7.	7.	63.	71.	4.	1.	1.	2.	1.	7.	-106.	-147.	54.76
01-15-83	0.	114.	0.	135.	2.	18.	0.	7.	6.	63.	71.	4.	1.	1.	2.	1.	7.	-106.	-172.	54.76
01-16-83	0.	243.	0.	135.	2.	17.	0.	6.	6.	63.	71.	4.	1.	1.	2.	1.	7.	-106.	-42.	54.75
01-17-83	0.	143.	0.	131.	0.	18.	0.	6.	5.	63.	67.	4.	1.	1.	2.	1.	7.	-158.	-193.	54.75
01-18-83	0.	185.	0.	139.	0.	19.	0.	6.	5.	63.	75.	4.	1.	1.	2.	1.	7.	-264.	-264.	54.74
01-19-83	0.	271.	0.	151.	0.	41.	0.	6.	5.	61.	89.	4.	1.	1.	2.	1.	7.	580.	631.	54.72
01-20-83	1534.	71.	0.	186.	0.	30.	9.	12.	10.	77.	109.	4.	1.	1.	2.	1.	7.	1589.	-137.	54.79
01-21-83	1052.	14.	0.	204.	89.	23.	0.	14.	14.	99.	105.	4.	1.	1.	2.	1.	7.	905.	-315.	54.87
01-22-83	214.	86.	0.	200.	149.	19.	0.	14.	15.	107.	93.	4.	1.	1.	2.	1.	7.	107.	-138.	54.88
01-23-83	178.	114.	0.	198.	149.	18.	0.	15.	15.	121.	77.	4.	1.	1.	2.	1.	7.	0.	-179.	54.88
01-24-83	0.	71.	0.	200.	65.	18.	0.	14.	16.	133.	67.	4.	1.	1.	2.	1.	7.	0.	-128.	54.88
01-25-83	0.	114.	0.	198.	10.	19.	0.	12.	15.	135.	63.	4.	1.	1.	2.	1.	7.	160.	22.	54.88
01-26-83	0.	114.	0.	192.	10.	22.	0.	10.	15.	129.	63.	4.	1.	1.	2.	1.	7.	53.	-79.	54.89
01-27-83	125.	171.	0.	165.	8.	19.	0.	78.	15.	129.	36.	4.	1.	1.	2.	1.	7.	160.	-80.	54.89
01-28-83	196.	100.	0.	159.	12.	18.	0.	43.	15.	129.	30.	4.	1.	1.	2.	1.	7.	160.	-176.	54.91
01-29-83	0.	143.	0.	151.	10.	19.	0.	39.	15.	129.	22.	4.	1.	1.	2.	1.	7.	0.	-88.	54.90
01-30-83	0.	114.	0.	143.	12.	19.	0.	41.	15.	129.	14.	4.	1.	1.	2.	1.	7.	53.	-55.	54.91
01-31-83	0.	157.	0.	153.	12.	112.	0.	41.	15.	129.	24.	4.	1.	1.	2.	1.	7.	320.	152.	54.91
TOTAL:	3460.	3923.	0.	4798.	557.	675.	9.	466.	346.	2741.	2057.	138.	40.	32.	67.	17.	218.	2713.	-3072.	

TOTAL INFLOW = 10266. ACRE-FT
TOTAL OUTFLOW = 4481. ACRE-FT
TOTAL SEEPAGE = 138. ACRE-FT
STORAGE CHANGE = 2713. ACRE-FT
RESIDUE INFLOW = -3072. ACRE-FT
MEAN LAKE STAGE = 54.81 FT
MEAN LAKE AREA = 21217. ACRE
MEAN LAKE VOLUME = 143001. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
02-01-83	107.	171.	0.	141.	8.	31.	0.	439.	15.	87.	54.	6.	8.	5.	29.	7.	0.	1765.	1157.	54.94
02-02-83	3567.	414.	2.	504.	26.	23.	80.	418.	26.	157.	347.	6.	8.	5.	29.	7.	0.	2591.	-1644.	55.07
02-03-83	1070.	385.	294.	559.	579.	38.	0.	328.	34.	210.	349.	6.	8.	5.	29.	7.	0.	979.	-434.	55.18
02-04-83	0.	357.	666.	434.	1142.	50.	0.	491.	36.	234.	200.	6.	8.	5.	29.	7.	0.	-272.	-505.	55.16
02-05-83	0.	171.	666.	407.	1137.	30.	0.	371.	37.	256.	151.	6.	8.	5.	29.	7.	0.	54.	-203.	55.15
02-06-83	1908.	228.	666.	466.	1123.	28.	6.	286.	38.	286.	180.	6.	8.	5.	29.	7.	0.	1087.	-1015.	55.17
02-07-83	107.	257.	659.	768.	1305.	51.	4.	213.	46.	345.	422.	6.	8.	5.	29.	7.	0.	820.	481.	55.25
02-08-83	0.	271.	662.	678.	1418.	31.	0.	154.	49.	345.	333.	6.	8.	5.	29.	7.	0.	-273.	-213.	55.24
02-09-83	0.	185.	662.	619.	1414.	205.	0.	119.	50.	331.	288.	6.	8.	5.	29.	7.	0.	0.	-110.	55.23
02-10-83	571.	171.	662.	627.	1414.	131.	11.	119.	52.	327.	300.	6.	8.	5.	29.	7.	0.	273.	-369.	55.24
02-11-83	178.	228.	730.	680.	1579.	55.	0.	28.	54.	329.	351.	6.	8.	5.	29.	7.	0.	55.	81.	55.25
02-12-83	2407.	271.	823.	660.	1741.	45.	5.	27.	58.	317.	343.	6.	8.	5.	29.	7.	0.	2568.	498.	55.25
02-13-83	2336.	271.	795.	1634.	1740.	136.	132.	71.	120.	553.	1081.	6.	8.	5.	29.	7.	0.	4000.	731.	55.49
02-14-83	0.	257.	1434.	1714.	3217.	57.	23.	75.	149.	766.	948.	6.	8.	5.	29.	7.	0.	1121.	1089.	55.61
02-15-83	0.	257.	2152.	1573.	4542.	41.	21.	69.	146.	781.	791.	6.	8.	5.	29.	7.	0.	-504.	239.	55.59
02-16-83	1712.	200.	2354.	1648.	4733.	34.	71.	72.	161.	900.	748.	6.	8.	5.	29.	7.	0.	614.	-561.	55.56
02-17-83	606.	43.	2461.	1847.	4552.	31.	30.	81.	188.	1053.	793.	6.	8.	5.	29.	7.	0.	730.	27.	55.64
02-18-83	0.	228.	2471.	1730.	4435.	33.	25.	76.	180.	944.	785.	6.	8.	5.	29.	7.	0.	-561.	-467.	55.63
02-19-83	0.	243.	2458.	1597.	4338.	47.	22.	70.	165.	807.	789.	6.	8.	5.	29.	7.	0.	-840.	-672.	55.59
02-20-83	0.	157.	2446.	1496.	4286.	47.	19.	65.	152.	692.	803.	6.	8.	5.	29.	7.	0.	-1005.	-840.	55.55
02-21-83	36.	271.	2406.	1379.	4207.	43.	15.	60.	141.	581.	797.	6.	8.	5.	29.	7.	0.	-1001.	-657.	55.50
02-22-83	375.	143.	2269.	1216.	4114.	40.	20.	52.	133.	490.	726.	6.	8.	5.	29.	7.	0.	-943.	-846.	55.46
02-23-83	125.	114.	2114.	1053.	4179.	36.	7.	45.	123.	417.	637.	6.	8.	5.	29.	7.	0.	-1327.	-592.	55.42
02-24-83	0.	314.	1922.	861.	4209.	32.	2.	36.	116.	345.	516.	6.	8.	5.	29.	7.	0.	-1925.	-427.	55.34
02-25-83	0.	285.	1117.	718.	4221.	29.	0.	70.	109.	292.	426.	6.	8.	5.	29.	7.	0.	-2458.	-49.	55.24
02-26-83	0.	328.	0.	625.	4266.	27.	0.	57.	104.	254.	371.	6.	8.	5.	29.	7.	0.	-1949.	1778.	55.12
02-27-83	820.	200.	0.	593.	4122.	39.	4.	61.	111.	236.	357.	6.	8.	5.	29.	7.	0.	-432.	2208.	55.06
02-28-83	820.	29.	887.	611.	3166.	40.	0.	64.	108.	236.	375.	6.	8.	5.	29.	7.	0.	756.	1365.	55.08
TOTAL:	16745.	6449.	33780.	26836.	77213.	1429.	496.	4019.	2702.	12573.	14263.	164.	218.	132.	806.	202.	3.	3925.	52.	

TOTAL INFLOW = 87534. ACRE-FT
TOTAL OUTFLOW = 83661. ACRE-FT
TOTAL SEEPAGE = 164. ACRE-FT
STORAGE CHANGE = 3925. ACRE-FT
RESIDUE INFLOW = 52. ACRE-FT
MEAN LAKE STAGE = 55.32 FT
MEAN LAKE AREA = 21968. ACRE
MEAN LAKE VOLUME = 153957. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
03-01-83	375.	100.	1597.	577.	1613.	36.	0.	62.	101.	232.	345.	6.	6.	11.	101.	25.	7.	813.	-378.	55.13
03-02-83	0.	114.	1505.	502.	1135.	31.	0.	53.	99.	222.	280.	6.	6.	11.	101.	25.	7.	706.	-392.	55.15
03-03-83	0.	200.	700.	446.	387.	29.	0.	46.	96.	214.	232.	6.	6.	11.	101.	25.	7.	926.	39.	55.20
03-04-83	0.	214.	123.	403.	147.	28.	0.	42.	92.	206.	196.	6.	6.	11.	101.	25.	7.	601.	117.	55.24
03-05-83	0.	285.	0.	363.	149.	26.	2.	39.	89.	196.	167.	6.	6.	11.	101.	25.	7.	383.	141.	55.25
03-06-83	0.	214.	0.	329.	151.	26.	2.	12.	84.	188.	141.	6.	6.	11.	101.	25.	7.	493.	247.	55.27
03-07-83	1338.	157.	0.	458.	561.	63.	31.	57.	78.	202.	256.	6.	6.	11.	101.	25.	7.	658.	-805.	55.30
03-08-83	303.	200.	177.	809.	1137.	59.	5.	65.	82.	240.	569.	6.	6.	11.	101.	25.	7.	165.	-156.	55.33
03-09-83	0.	128.	317.	571.	1367.	39.	1.	52.	77.	252.	319.	6.	6.	11.	101.	25.	7.	-604.	-323.	55.31
03-10-83	125.	285.	315.	480.	1696.	32.	1.	44.	70.	250.	230.	6.	6.	11.	101.	25.	7.	-1533.	-776.	55.28
03-11-83	18.	300.	212.	442.	1920.	30.	0.	40.	64.	248.	194.	6.	6.	11.	101.	25.	7.	-1685.	-429.	55.17
03-12-83	0.	200.	143.	409.	1948.	28.	0.	37.	62.	238.	171.	6.	6.	11.	101.	25.	7.	-1354.	-41.	55.12
03-13-83	0.	171.	143.	369.	1946.	26.	0.	34.	62.	222.	147.	6.	6.	11.	101.	25.	7.	-1617.	-290.	55.05
03-14-83	0.	143.	252.	341.	1960.	26.	0.	32.	61.	206.	135.	6.	6.	11.	101.	25.	7.	-1126.	108.	54.97
03-15-83	1284.	157.	532.	387.	1995.	48.	10.	41.	63.	206.	180.	6.	6.	11.	101.	25.	7.	214.	-154.	54.94
03-16-83	571.	0.	855.	551.	2009.	53.	1.	54.	71.	230.	321.	6.	6.	11.	101.	25.	7.	859.	556.	54.99
03-17-83	660.	342.	1269.	595.	2265.	53.	1.	66.	77.	260.	335.	6.	6.	11.	101.	25.	7.	215.	-55.	55.02
03-18-83	178.	214.	1515.	625.	2521.	45.	0.	59.	75.	301.	323.	6.	6.	11.	101.	25.	7.	-430.	-349.	55.01
03-19-83	0.	157.	1537.	617.	2565.	37.	0.	50.	75.	347.	270.	6.	6.	11.	101.	25.	7.	-536.	-287.	54.98
03-20-83	89.	228.	1535.	655.	2590.	33.	0.	45.	73.	399.	256.	6.	6.	11.	101.	25.	7.	-536.	-303.	54.96
03-21-83	267.	200.	1985.	934.	3275.	61.	6.	70.	70.	466.	468.	6.	6.	11.	101.	25.	7.	-1176.	-1252.	54.93
03-22-83	0.	371.	1841.	942.	3705.	39.	0.	53.	68.	448.	494.	6.	6.	11.	101.	25.	7.	-1648.	-672.	54.85
03-23-83	0.	243.	1755.	762.	3677.	35.	0.	45.	66.	377.	385.	6.	6.	11.	101.	25.	7.	-1005.	96.	54.78
03-24-83	981.	185.	1684.	958.	3608.	85.	17.	105.	66.	397.	561.	6.	6.	11.	101.	25.	7.	-898.	-1158.	54.75
03-25-83	0.	314.	1605.	996.	3606.	55.	0.	85.	70.	365.	631.	6.	6.	11.	101.	25.	7.	-1420.	-467.	54.69
03-26-83	0.	214.	1434.	724.	3539.	42.	0.	68.	70.	311.	413.	6.	6.	11.	101.	25.	7.	-838.	420.	54.62
03-27-83	2461.	314.	1452.	789.	3467.	107.	43.	181.	76.	317.	472.	6.	6.	11.	101.	25.	7.	628.	-857.	54.61
03-28-83	18.	29.	1458.	1216.	3507.	97.	1.	242.	99.	405.	811.	6.	6.	11.	101.	25.	7.	421.	668.	54.68
03-29-83	0.	357.	1325.	1023.	3499.	53.	0.	172.	102.	391.	633.	6.	6.	11.	101.	25.	7.	-735.	289.	54.65
03-30-83	196.	243.	1299.	829.	3481.	41.	0.	129.	99.	361.	468.	6.	6.	11.	101.	25.	7.	-419.	556.	54.61
03-31-83	820.	228.	1269.	1035.	3487.	82.	15.	202.	107.	387.	649.	6.	6.	11.	101.	25.	7.	-52.	-25.	54.61
TOTAL:	9683.	6506.	29835.	20138.	68910.	1446.	136.	2281.	2443.	9086.	11052.	193.	172.	336.	3146.	787.	221.	-10533.	-5934.	

TOTAL INFLOW = 70817. ACRE-FT
TOTAL OUTFLOW = 75415. ACRE-FT
TOTAL SEEPAGE = 193. ACRE-FT
STORAGE CHANGE = -10533. ACRE-FT
RESIDUE INFLOW = -5934. ACRE-FT
MEAN LAKE STAGE = 54.98 FT
MEAN LAKE AREA = 21461. ACRE
MEAN LAKE VOLUME = 146592. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
04-01-83	0.	357.	2037.	1023.	3491.	48.	0.	156.	112.	387.	637.	7.	7.	12.	81.	20.	13.	-418.	-86.	54.61
04-02-83	89.	328.	2005.	845.	3384.	39.	0.	117.	104.	367.	478.	7.	7.	12.	81.	20.	13.	-1044.	-669.	54.57
04-03-83	0.	71.	1730.	809.	3390.	37.	0.	95.	96.	361.	448.	7.	7.	12.	81.	20.	13.	-1351.	-795.	54.50
04-04-83	0.	414.	1281.	730.	3392.	33.	0.	76.	89.	345.	385.	7.	7.	12.	81.	20.	13.	-1293.	164.	54.44
04-05-83	0.	371.	1254.	660.	3360.	31.	0.	63.	82.	317.	343.	7.	7.	12.	81.	20.	13.	-1340.	162.	54.38
04-06-83	0.	357.	1234.	591.	3356.	29.	0.	54.	76.	286.	305.	7.	7.	12.	81.	20.	13.	-1488.	103.	54.31
04-07-83	499.	385.	1198.	500.	3332.	28.	0.	48.	71.	254.	246.	7.	7.	12.	81.	20.	13.	-1021.	213.	54.24
04-08-83	642.	314.	1206.	504.	3308.	36.	1.	47.	78.	250.	254.	7.	7.	12.	81.	20.	13.	-357.	613.	54.21
04-09-83	1623.	228.	1202.	512.	3314.	48.	7.	55.	104.	250.	262.	7.	7.	12.	81.	20.	13.	458.	311.	54.20
04-10-83	838.	214.	1190.	972.	3346.	111.	13.	161.	148.	339.	633.	7.	7.	12.	81.	20.	13.	358.	346.	54.26
04-11-83	0.	414.	1214.	970.	3318.	57.	0.	105.	155.	387.	583.	7.	7.	12.	81.	20.	13.	-664.	428.	54.24
04-12-83	0.	371.	1208.	843.	3300.	45.	0.	86.	142.	375.	468.	7.	7.	12.	81.	20.	13.	-1120.	89.	54.19
04-13-83	0.	371.	1214.	742.	3261.	39.	0.	72.	127.	359.	383.	7.	7.	12.	81.	20.	13.	-1267.	32.	54.13
04-14-83	0.	442.	1192.	670.	3213.	35.	0.	59.	110.	339.	331.	7.	7.	12.	81.	20.	13.	-1060.	389.	54.07
04-15-83	642.	357.	1160.	607.	3211.	33.	0.	52.	94.	311.	296.	7.	7.	12.	81.	20.	13.	-1259.	-417.	54.02
04-16-83	0.	328.	1174.	559.	3253.	30.	0.	46.	83.	278.	282.	7.	7.	12.	81.	20.	13.	-1703.	-154.	53.94
04-17-83	0.	471.	1142.	476.	3279.	28.	0.	41.	76.	244.	232.	7.	7.	12.	81.	20.	13.	-1743.	104.	53.85
04-18-83	588.	399.	1091.	387.	3183.	28.	0.	37.	70.	216.	171.	7.	7.	12.	81.	20.	13.	-1684.	-442.	53.77
04-19-83	143.	442.	1127.	409.	3118.	36.	1.	38.	66.	206.	202.	7.	7.	12.	81.	20.	13.	-1675.	-72.	53.68
04-20-83	0.	342.	1095.	367.	3037.	29.	0.	34.	64.	192.	175.	7.	7.	12.	81.	20.	13.	-1618.	35.	53.60
04-21-83	0.	285.	1061.	325.	3009.	27.	0.	30.	62.	179.	147.	7.	7.	12.	81.	20.	13.	-1610.	40.	53.52
04-22-83	0.	328.	1055.	286.	2989.	26.	0.	28.	61.	171.	115.	7.	7.	12.	81.	20.	13.	-1456.	267.	53.43
04-23-83	571.	328.	1010.	292.	2914.	44.	3.	39.	60.	177.	115.	7.	7.	12.	81.	20.	13.	-1256.	-172.	53.37
04-24-83	0.	185.	980.	411.	3037.	37.	0.	44.	56.	184.	226.	7.	7.	12.	81.	20.	13.	-1540.	16.	53.30
04-25-83	0.	571.	1190.	333.	2259.	27.	0.	34.	54.	177.	157.	7.	7.	12.	81.	20.	13.	-1196.	-144.	53.21
04-26-83	0.	514.	1325.	280.	1791.	26.	0.	29.	53.	173.	107.	7.	7.	12.	81.	20.	13.	-573.	-120.	53.18
04-27-83	0.	342.	1101.	258.	1500.	26.	0.	26.	52.	171.	87.	7.	7.	12.	81.	20.	13.	-524.	-284.	53.15
04-28-83	0.	514.	904.	242.	1319.	25.	0.	24.	50.	167.	75.	7.	7.	12.	81.	20.	13.	-571.	-123.	53.12
04-29-83	0.	399.	904.	228.	1335.	24.	0.	21.	50.	161.	67.	7.	7.	12.	81.	20.	13.	-570.	-202.	53.09
04-30-83	0.	471.	897.	206.	1349.	23.	0.	20.	48.	153.	54.	7.	7.	12.	81.	20.	13.	-569.	-82.	53.06
TOTAL:	5635.	36381.	87348.	10914.	16036.	1089.	24.	1736.	2495.	7773.	8263.	202.	198.	350.	2423.	606.	380.	-31156.	-449.	

TOTAL INFLOW = 67555. ACRE-FT
TOTAL OUTFLOW = 98262. ACRE-FT
TOTAL SEEPAGE = 202. ACRE-FT
STORAGE CHANGE = -31156. ACRE-FT
RESIDUE INFLOW = -449. ACRE-FT
MEAN LAKE STAGE = 53.85 FT
MEAN LAKE AREA = 19927. ACRE
MEAN LAKE VOLUME = 123241. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
05-01-83	0.	357.	895.	186.	1359.	22.	0.	18.	5.	143.	44.	7.	1.	0.	1.	0.	1.	-568.	11.	53.03
05-02-83	0.	371.	649.	163.	1367.	23.	0.	17.	46.	135.	28.	7.	1.	0.	1.	0.	1.	-662.	169.	53.00
05-03-83	0.	414.	476.	145.	1682.	24.	0.	15.	44.	127.	18.	7.	1.	0.	1.	0.	1.	-1225.	155.	52.96
05-04-83	303.	371.	476.	153.	1884.	28.	0.	15.	43.	121.	32.	7.	1.	0.	1.	0.	1.	-1407.	-180.	52.87
05-05-83	125.	171.	478.	155.	1575.	29.	0.	14.	44.	119.	36.	7.	1.	0.	1.	0.	1.	-1167.	-277.	52.81
05-06-83	0.	357.	476.	135.	1384.	26.	0.	13.	42.	115.	20.	7.	1.	0.	1.	0.	1.	-1210.	-172.	52.75
05-07-83	0.	485.	476.	127.	1379.	25.	0.	13.	41.	111.	16.	7.	1.	0.	1.	0.	1.	-1066.	106.	52.68
05-08-83	0.	528.	474.	107.	1384.	22.	0.	11.	38.	109.	-2.	7.	1.	0.	1.	0.	1.	-832.	417.	52.63
05-09-83	0.	385.	198.	103.	783.	21.	0.	10.	37.	105.	-2.	7.	1.	0.	1.	0.	1.	-783.	5.	52.59
05-10-83	0.	428.	0.	103.	397.	23.	0.	10.	35.	73.	30.	7.	1.	0.	1.	0.	1.	-735.	-93.	52.55
05-11-83	0.	528.	0.	95.	393.	25.	0.	9.	34.	69.	26.	7.	1.	0.	1.	0.	1.	-688.	59.	52.51
05-12-83	53.	428.	0.	91.	395.	28.	0.	9.	32.	65.	26.	7.	1.	0.	1.	0.	1.	-595.	4.	52.47
05-13-83	0.	399.	0.	89.	395.	31.	0.	8.	30.	65.	24.	7.	1.	0.	1.	0.	1.	-594.	32.	52.44
05-14-83	0.	528.	0.	79.	393.	30.	0.	8.	28.	63.	16.	7.	1.	0.	1.	0.	1.	-638.	127.	52.41
05-15-83	0.	499.	0.	75.	389.	27.	0.	7.	26.	60.	16.	7.	1.	0.	1.	0.	1.	-637.	105.	52.37
05-16-83	0.	399.	0.	67.	389.	26.	0.	7.	25.	60.	8.	7.	1.	0.	1.	0.	1.	-726.	-73.	52.34
05-17-83	0.	385.	196.	81.	543.	28.	0.	7.	23.	58.	24.	7.	1.	0.	1.	0.	1.	-860.	-278.	52.29
05-18-83	0.	399.	502.	85.	932.	28.	0.	6.	23.	56.	30.	7.	1.	0.	1.	0.	1.	-902.	-226.	52.24
05-19-83	0.	442.	617.	71.	1091.	29.	0.	6.	21.	56.	16.	7.	1.	0.	1.	0.	1.	-855.	-75.	52.19
05-20-83	0.	385.	613.	67.	1087.	30.	0.	5.	19.	54.	14.	7.	1.	0.	1.	0.	1.	-762.	-36.	52.15
05-21-83	0.	457.	611.	69.	1077.	29.	0.	5.	17.	52.	18.	7.	1.	0.	1.	0.	1.	-850.	-59.	52.11
05-22-83	125.	528.	607.	65.	1067.	25.	0.	5.	16.	52.	14.	7.	1.	0.	1.	0.	1.	-892.	-150.	52.05
05-23-83	0.	442.	603.	65.	1073.	23.	0.	5.	14.	50.	16.	7.	1.	0.	1.	0.	1.	-845.	-51.	52.01
05-24-83	0.	257.	599.	69.	1077.	24.	0.	5.	12.	50.	20.	7.	1.	0.	1.	0.	1.	-842.	-229.	51.96
05-25-83	0.	243.	436.	71.	785.	25.	0.	5.	11.	48.	24.	7.	1.	0.	1.	0.	1.	-796.	-327.	51.91
05-26-83	0.	485.	311.	71.	742.	27.	0.	5.	10.	50.	22.	7.	1.	0.	1.	0.	1.	-926.	-133.	51.87
05-27-83	0.	542.	220.	61.	833.	26.	0.	5.	8.	46.	16.	7.	1.	0.	1.	0.	1.	-1054.	-10.	51.81
05-28-83	0.	457.	143.	56.	817.	26.	0.	5.	7.	48.	8.	7.	1.	0.	1.	0.	1.	-962.	65.	51.75
05-29-83	0.	457.	143.	50.	801.	23.	0.	5.	6.	48.	2.	7.	1.	0.	1.	0.	1.	-654.	367.	51.70
05-30-83	1213.	385.	143.	81.	803.	36.	7.	9.	7.	58.	24.	7.	1.	0.	1.	0.	1.	305.	-13.	51.67
05-31-83	1320.	328.	143.	198.	797.	70.	12.	16.	14.	87.	111.	7.	1.	0.	1.	0.	1.	306.	-353.	51.73
TOTAL:	3139.	10485.	29074.	20.	759.	690.	34.	20.	28.	-1110.	12840.	3039.	860.	279.	2348.	222.	15.	5.	-24120.	

TOTAL INFLOW = 18903. ACRE-FT
TOTAL OUTFLOW = 41914. ACRE-FT
TOTAL SEEPAGE = 222. ACRE-FT
STORAGE CHANGE = -24120. ACRE-FT
RESIDUE INFLOW = -1110. ACRE-FT
MEAN LAKE STAGE = 52.31 FT
MEAN LAKE AREA = 18130. ACRE
MEAN LAKE VOLUME = 94195. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
06-01-83	36.	271.	54.	175.	256.	29.	0.	8.	1.	87.	87.	7.	3.	4.	5.	1.	0.	-218.	-14.	51.71
06-02-83	0.	371.	0.	151.	0.	24.	0.	6.	1.	97.	54.	7.	3.	4.	5.	1.	0.	-44.	124.	51.71
06-03-83	178.	328.	0.	153.	0.	26.	0.	6.	1.	109.	44.	7.	3.	4.	5.	1.	0.	0.	-56.	51.70
06-04-83	0.	428.	0.	169.	0.	24.	0.	6.	1.	123.	46.	7.	3.	4.	5.	1.	0.	44.	251.	51.71
06-05-83	36.	414.	0.	163.	0.	19.	0.	5.	1.	117.	46.	7.	3.	4.	5.	1.	0.	262.	430.	51.71
06-06-83	1445.	314.	0.	165.	0.	38.	21.	44.	1.	113.	52.	7.	3.	4.	5.	1.	0.	1093.	-326.	51.74
06-07-83	1658.	328.	0.	175.	0.	48.	0.	19.	1.	117.	58.	7.	3.	4.	5.	1.	0.	2595.	1000.	51.83
06-08-83	4779.	428.	0.	343.	0.	97.	28.	48.	4.	175.	169.	7.	3.	4.	5.	1.	0.	2939.	-1953.	52.03
06-09-83	874.	385.	0.	442.	0.	78.	3.	49.	8.	175.	268.	7.	3.	4.	5.	1.	0.	1437.	347.	52.16
06-10-83	0.	342.	0.	335.	0.	47.	0.	35.	9.	171.	165.	7.	3.	4.	5.	1.	0.	405.	300.	52.19
06-11-83	36.	428.	0.	305.	0.	36.	0.	25.	8.	194.	111.	7.	3.	4.	5.	1.	0.	315.	311.	52.21
06-12-83	267.	442.	0.	325.	0.	36.	0.	20.	7.	208.	117.	7.	3.	4.	5.	1.	0.	541.	306.	52.23
06-13-83	392.	528.	0.	415.	0.	88.	22.	32.	7.	276.	139.	7.	3.	4.	5.	1.	0.	768.	320.	52.27
06-14-83	89.	285.	0.	430.	0.	40.	0.	27.	7.	274.	157.	7.	3.	4.	5.	1.	0.	544.	214.	52.31
06-15-83	36.	399.	0.	387.	0.	34.	0.	24.	6.	268.	119.	7.	3.	4.	5.	1.	0.	227.	118.	52.33
06-16-83	0.	471.	0.	361.	0.	32.	0.	20.	6.	252.	109.	7.	3.	4.	5.	1.	0.	91.	121.	52.34
06-17-83	0.	442.	0.	337.	0.	30.	0.	17.	100.	234.	103.	7.	3.	4.	5.	1.	0.	45.	-17.	52.34
06-18-83	0.	499.	0.	296.	0.	28.	0.	14.	129.	212.	83.	7.	3.	4.	5.	1.	0.	45.	56.	52.34
06-19-83	0.	428.	0.	250.	0.	27.	0.	12.	129.	190.	60.	7.	3.	4.	5.	1.	0.	45.	33.	52.34
06-20-83	250.	499.	0.	208.	0.	29.	0.	11.	129.	161.	48.	7.	3.	4.	5.	1.	0.	272.	123.	52.35
06-21-83	499.	171.	0.	192.	0.	33.	0.	11.	129.	147.	46.	7.	3.	4.	5.	1.	0.	227.	-488.	52.37
06-22-83	339.	243.	0.	212.	0.	52.	3.	14.	129.	159.	54.	7.	3.	4.	5.	1.	0.	227.	-301.	52.37
06-23-83	214.	357.	0.	300.	0.	49.	11.	15.	129.	163.	137.	7.	3.	4.	5.	1.	0.	501.	119.	52.40
06-24-83	1213.	357.	0.	504.	0.	61.	1.	17.	129.	171.	333.	7.	3.	4.	5.	1.	0.	639.	-950.	52.43
06-25-83	214.	328.	0.	424.	0.	47.	0.	16.	129.	167.	258.	7.	3.	4.	5.	1.	0.	732.	208.	52.47
06-26-83	0.	285.	0.	444.	0.	41.	0.	15.	129.	169.	276.	7.	3.	4.	5.	1.	0.	550.	185.	52.51
06-27-83	0.	385.	0.	446.	0.	37.	0.	14.	129.	169.	278.	7.	3.	4.	5.	1.	0.	321.	59.	52.53
06-28-83	0.	428.	0.	409.	0.	33.	0.	12.	129.	167.	242.	7.	3.	4.	5.	1.	0.	276.	99.	52.54
06-29-83	1872.	471.	0.	369.	0.	32.	0.	11.	129.	161.	208.	7.	3.	4.	5.	1.	0.	1012.	-952.	52.56
06-30-83	3584.	414.	0.	520.	0.	112.	109.	123.	100.	242.	278.	7.	3.	4.	5.	1.	0.	2822.	-1333.	52.65
TOTAL:	18012.	11470.	54.	9404.	256.	1308.	199.	675.	1818.	5264.	4139.	216.	98.	132.	149.	37.	0.	18713.	-1664.	

TOTAL INFLOW = 32103. ACRE-FT
TOTAL OUTFLOW = 11726. ACRE-FT
TOTAL SEEPAGE = 216. ACRE-FT
STORAGE CHANGE = 18713. ACRE-FT
RESIDUE INFLOW = -1664. ACRE-FT
MEAN LAKE STAGE = 52.21 FT
MEAN LAKE AREA = 18013. ACRE
MEAN LAKE VOLUME = 92313. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
07-01-83	1516.	257.	0.	990.	0.	177.	3.	66.	20.	339.	651.	5.	7.	10.	47.	12.	4.	2811.	212.	52.86
07-02-83	18.	328.	0.	708.	0.	75.	0.	26.	27.	290.	418.	5.	7.	10.	47.	12.	4.	1460.	850.	52.95
07-03-83	0.	328.	0.	625.	0.	47.	0.	21.	25.	274.	351.	5.	7.	10.	47.	12.	4.	1088.	613.	53.02
07-04-83	1427.	328.	0.	607.	0.	45.	1.	19.	23.	280.	327.	5.	7.	10.	47.	12.	4.	1139.	-740.	53.07
07-05-83	0.	371.	0.	609.	0.	40.	0.	17.	21.	313.	296.	5.	7.	10.	47.	12.	4.	1382.	981.	53.14
07-06-83	1872.	428.	0.	653.	0.	60.	11.	65.	22.	357.	296.	5.	7.	10.	47.	12.	4.	3159.	818.	53.21
07-07-83	2354.	628.	0.	926.	0.	125.	19.	162.	29.	522.	405.	5.	7.	10.	47.	12.	4.	3841.	768.	53.47
07-08-83	375.	357.	0.	1019.	200.	102.	0.	171.	29.	599.	420.	5.	7.	10.	47.	12.	4.	2060.	836.	53.61
07-09-83	36.	171.	0.	897.	353.	57.	0.	97.	28.	498.	399.	5.	7.	10.	47.	12.	4.	1084.	409.	53.68
07-10-83	0.	328.	0.	843.	349.	43.	0.	63.	26.	426.	417.	5.	7.	10.	47.	12.	4.	543.	161.	53.72
07-11-83	0.	428.	0.	774.	603.	36.	0.	44.	24.	371.	403.	5.	7.	10.	47.	12.	4.	99.	167.	53.73
07-12-83	0.	471.	0.	722.	772.	33.	0.	37.	22.	333.	389.	5.	7.	10.	47.	12.	4.	-247.	97.	53.73
07-13-83	0.	428.	0.	651.	780.	31.	0.	31.	20.	301.	349.	5.	7.	10.	47.	12.	4.	-345.	44.	53.71
07-14-83	178.	471.	0.	561.	793.	29.	0.	27.	18.	268.	294.	5.	7.	10.	47.	12.	4.	-394.	-30.	53.69
07-15-83	196.	357.	0.	478.	799.	31.	0.	23.	16.	240.	238.	5.	7.	10.	47.	12.	4.	-542.	-215.	53.67
07-16-83	0.	414.	0.	419.	805.	31.	0.	20.	15.	214.	204.	5.	7.	10.	47.	12.	4.	-688.	-39.	53.64
07-17-83	0.	342.	0.	363.	817.	26.	0.	18.	13.	182.	180.	5.	7.	10.	47.	12.	4.	-637.	17.	53.60
07-18-83	0.	485.	0.	301.	543.	24.	0.	16.	13.	159.	143.	5.	7.	10.	47.	12.	4.	-392.	197.	53.57
07-19-83	0.	471.	0.	250.	135.	26.	0.	14.	12.	149.	101.	5.	7.	10.	47.	12.	4.	-196.	23.	53.56
07-20-83	0.	214.	0.	230.	0.	25.	0.	12.	12.	149.	81.	5.	7.	10.	47.	12.	4.	49.	-102.	53.55
07-21-83	71.	471.	0.	212.	0.	28.	2.	11.	12.	147.	65.	5.	7.	10.	47.	12.	4.	245.	293.	53.56
07-22-83	0.	285.	0.	210.	0.	30.	0.	10.	11.	145.	65.	5.	7.	10.	47.	12.	4.	147.	85.	53.58
07-23-83	0.	414.	0.	196.	0.	26.	0.	10.	11.	143.	54.	5.	7.	10.	47.	12.	4.	-49.	37.	53.58
07-24-83	0.	414.	0.	177.	0.	25.	0.	9.	11.	131.	46.	5.	7.	10.	47.	12.	4.	-147.	-39.	53.57
07-25-83	0.	499.	0.	151.	0.	22.	0.	8.	8.	119.	32.	5.	7.	10.	47.	12.	4.	-245.	-19.	53.56
07-26-83	267.	542.	0.	131.	0.	27.	2.	8.	8.	109.	22.	5.	7.	10.	47.	12.	4.	0.	13.	53.55
07-27-83	856.	471.	0.	137.	0.	37.	0.	10.	8.	107.	30.	5.	7.	10.	47.	12.	4.	0.	-663.	53.56
07-28-83	18.	385.	0.	147.	0.	33.	0.	9.	8.	107.	40.	5.	7.	10.	47.	12.	4.	-195.	-110.	53.55
07-29-83	660.	514.	0.	117.	0.	41.	11.	24.	9.	105.	12.	5.	7.	10.	47.	12.	4.	391.	-42.	53.54
07-30-83	1320.	285.	0.	177.	0.	35.	10.	27.	10.	169.	8.	5.	7.	10.	47.	12.	4.	1127.	-251.	53.59
07-31-83	535.	314.	0.	528.	0.	35.	1.	16.	11.	171.	357.	5.	7.	10.	47.	12.	4.	886.	-12.	53.66
TOTAL:	11699.	12198.	0.	14806.	6950.	1401.	60.	1092.	520.	7716.	7091.	169.	213.	317.	1457.	364.	125.	17433.	4359.	

TOTAL INFLOW = 32222. ACRE-FT
TOTAL OUTFLOW = 19148. ACRE-FT
TOTAL SEEPAGE = 169. ACRE-FT
STORAGE CHANGE = 17433. ACRE-FT
RESIDUE INFLOW = 4359. ACRE-FT
MEAN LAKE STAGE = 53.50 FT
MEAN LAKE AREA = 19487. ACRE
MEAN LAKE VOLUME = 116245. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
08-01-83	214.	300.	524.	397.	633.	35.	0.	15.	11.	161.	236.	5.	4.	2.	15.	4.	1.	394.	98.	53.68
08-02-83	89.	371.	950.	301.	1053.	35.	0.	14.	107.	153.	149.	5.	4.	2.	15.	4.	1.	197.	91.	53.70
08-03-83	36.	414.	1083.	258.	1482.	33.	0.	13.	11.	141.	117.	5.	4.	2.	15.	4.	1.	-345.	85.	53.70
08-04-83	36.	399.	1174.	266.	1757.	32.	0.	11.	11.	117.	149.	5.	4.	2.	15.	4.	1.	-591.	4.	53.66
08-05-83	160.	357.	1172.	244.	1747.	38.	1.	13.	10.	167.	77.	5.	4.	2.	15.	4.	1.	-295.	138.	53.64
08-06-83	892.	328.	1162.	274.	1726.	44.	1.	14.	12.	228.	46.	5.	4.	2.	15.	4.	1.	147.	-230.	53.63
08-07-83	1052.	399.	1164.	434.	1714.	50.	0.	16.	12.	286.	149.	5.	4.	2.	15.	4.	1.	443.	-206.	53.65
08-08-83	321.	271.	1375.	601.	2243.	37.	0.	16.	12.	341.	260.	5.	4.	2.	15.	4.	1.	-99.	22.	53.68
08-09-83	981.	399.	1513.	692.	2598.	40.	0.	19.	12.	452.	240.	5.	4.	2.	15.	4.	1.	-492.	-783.	53.64
08-10-83	0.	243.	1513.	851.	2580.	40.	0.	23.	12.	653.	198.	5.	4.	2.	15.	4.	1.	-393.	-41.	53.63
08-11-83	0.	328.	1505.	978.	2579.	35.	0.	21.	12.	839.	139.	5.	4.	2.	15.	4.	1.	-490.	-167.	53.60
08-12-83	53.	300.	1492.	1095.	2575.	31.	0.	21.	12.	861.	234.	5.	4.	2.	15.	4.	1.	-294.	-156.	53.58
08-13-83	553.	485.	1476.	1107.	2596.	33.	1.	23.	13.	764.	343.	5.	4.	2.	15.	4.	1.	49.	-108.	53.57
08-14-83	838.	328.	1490.	1091.	2620.	37.	0.	25.	14.	660.	430.	5.	4.	2.	15.	4.	1.	98.	-480.	53.58
08-15-83	71.	228.	1486.	1035.	2606.	38.	0.	26.	14.	591.	444.	5.	4.	2.	15.	4.	1.	-49.	82.	53.58
08-16-83	0.	342.	1494.	978.	2590.	35.	0.	25.	14.	522.	456.	5.	4.	2.	15.	4.	1.	-343.	12.	53.58
08-17-83	178.	385.	1482.	900.	2582.	31.	0.	25.	13.	474.	426.	5.	4.	2.	15.	4.	1.	-684.	-378.	53.55
08-18-83	71.	485.	1484.	837.	2602.	29.	0.	22.	13.	460.	377.	5.	4.	2.	15.	4.	1.	-195.	404.	53.51
08-19-83	1302.	399.	1144.	807.	1781.	28.	0.	21.	13.	438.	369.	5.	4.	2.	15.	4.	1.	781.	-385.	53.53
08-20-83	18.	300.	906.	793.	1273.	25.	0.	19.	13.	407.	387.	5.	4.	2.	15.	4.	1.	588.	354.	53.59
08-21-83	18.	342.	912.	781.	1299.	23.	0.	18.	12.	367.	415.	5.	4.	2.	15.	4.	1.	-98.	-253.	53.59
08-22-83	18.	442.	653.	740.	1305.	24.	0.	16.	12.	323.	417.	5.	4.	2.	15.	4.	1.	-294.	-41.	53.58
08-23-83	0.	399.	190.	684.	1299.	26.	0.	14.	11.	282.	403.	5.	4.	2.	15.	4.	1.	-929.	-189.	53.56
08-24-83	0.	428.	236.	633.	1291.	24.	0.	14.	9.	246.	387.	5.	4.	2.	15.	4.	1.	-1314.	-543.	53.48
08-25-83	36.	328.	0.	524.	1279.	25.	0.	13.	8.	210.	313.	5.	4.	2.	15.	4.	1.	-1261.	-290.	53.42
08-26-83	36.	171.	0.	462.	1263.	27.	0.	12.	7.	180.	282.	5.	4.	2.	15.	4.	1.	-1207.	-348.	53.35
08-27-83	0.	385.	0.	428.	1271.	28.	0.	11.	7.	161.	268.	5.	4.	2.	15.	4.	1.	-1059.	91.	53.30
08-28-83	1052.	328.	0.	381.	1269.	41.	38.	45.	7.	149.	232.	5.	4.	2.	15.	4.	1.	-432.	-429.	53.24
08-29-83	160.	428.	0.	309.	696.	128.	4.	112.	7.	232.	77.	5.	4.	2.	15.	4.	1.	240.	611.	53.25
08-30-83	267.	285.	0.	490.	133.	39.	0.	29.	7.	208.	282.	5.	4.	2.	15.	4.	1.	816.	370.	53.27
08-31-83	339.	371.	0.	385.	0.	48.	0.	142.	7.	192.	192.	5.	4.	2.	15.	4.	1.	1158.	575.	53.34
TOTAL:	8792.	27580.	52447.	46.	437.	8493.	129.	473.	34.	-2089.	10971.	19757.	1142.	807.	11264.	167.	74.	118.	-5950.	

TOTAL INFLOW = 59557. ACRE-FT
TOTAL OUTFLOW = 63418. ACRE-FT
TOTAL SEEPAGE = 167. ACRE-FT
STORAGE CHANGE = -5950. ACRE-FT
RESIDUE INFLOW = -2089. ACRE-FT
MEAN LAKE STAGE = 53.53 FT
MEAN LAKE AREA = 19533. ACRE
MEAN LAKE VOLUME = 116988. ACRE-FT

LAKE TOHO WATER BUDGET

(ALL DATA IN ACRE-FT)

	RAIN	EVAP	S59	SHIN	S61	EDIT	WDIT	MILL	PART	AIRP	BROW	SEEP	JOHN	JUDG	NPAR	SPAR	PARP	DSTOR	RES	STG
09-01-83	1712.	428.	385.	369.	0.	60.	1.	399.	7.	240.	129.	7.	3.	0.	0.	0.	3.	1548.	-969.	53.39
09-02-83	392.	314.	657.	351.	0.	66.	1.	345.	8.	347.	4.	7.	3.	0.	0.	0.	3.	1900.	381.	53.50
09-03-83	892.	185.	658.	738.	0.	65.	3.	366.	8.	430.	307.	7.	3.	0.	0.	0.	3.	2204.	-353.	53.58
09-04-83	963.	243.	658.	839.	0.	87.	3.	423.	8.	460.	379.	7.	3.	0.	0.	0.	3.	2618.	-133.	53.72
09-05-83	0.	357.	655.	916.	0.	59.	0.	350.	8.	434.	482.	7.	3.	0.	0.	0.	3.	1793.	149.	53.85
09-06-83	0.	357.	635.	940.	534.	50.	0.	283.	7.	403.	538.	7.	3.	0.	0.	0.	3.	899.	-137.	53.90
09-07-83	0.	414.	617.	873.	861.	49.	0.	216.	7.	387.	486.	7.	3.	0.	0.	0.	3.	501.	2.	53.94
09-08-83	0.	243.	615.	817.	1162.	48.	0.	161.	6.	365.	452.	7.	3.	0.	0.	0.	3.	100.	-155.	53.95
09-09-83	0.	300.	780.	750.	1357.	37.	0.	116.	6.	317.	432.	7.	3.	0.	0.	0.	3.	-100.	-144.	53.95
09-10-83	0.	342.	940.	666.	1347.	33.	0.	83.	5.	276.	391.	7.	3.	0.	0.	0.	3.	-100.	-152.	53.94
09-11-83	410.	371.	940.	559.	1337.	30.	0.	61.	6.	238.	321.	7.	3.	0.	0.	0.	3.	50.	-261.	53.94
09-12-83	874.	428.	569.	448.	1325.	31.	10.	58.	8.	216.	232.	7.	3.	0.	0.	0.	3.	401.	143.	53.95
09-13-83	178.	314.	319.	361.	1319.	54.	0.	50.	8.	220.	141.	7.	3.	0.	0.	0.	3.	-100.	549.	53.98
09-14-83	196.	200.	317.	492.	1293.	45.	0.	46.	7.	202.	290.	7.	3.	0.	0.	0.	3.	-751.	-374.	53.94
09-15-83	0.	100.	121.	446.	682.	45.	0.	41.	7.	208.	238.	7.	3.	0.	0.	0.	3.	0.	109.	53.90
09-16-83	1569.	257.	0.	391.	367.	183.	82.	378.	10.	264.	127.	7.	3.	0.	0.	0.	3.	1252.	-751.	53.94
09-17-83	0.	171.	0.	290.	373.	167.	0.	308.	16.	305.	-16.	7.	3.	0.	0.	0.	3.	1259.	1010.	54.03
09-18-83	339.	86.	0.	855.	377.	68.	0.	227.	16.	339.	516.	7.	3.	0.	0.	0.	3.	858.	-196.	54.06
09-19-83	1177.	214.	381.	680.	952.	53.	0.	335.	17.	409.	272.	7.	3.	0.	0.	0.	3.	1063.	-426.	54.11
09-20-83	588.	285.	643.	643.	1916.	52.	0.	454.	19.	587.	56.	7.	3.	0.	0.	0.	3.	152.	-57.	54.17
09-21-83	89.	214.	672.	996.	3158.	43.	0.	396.	18.	541.	454.	7.	3.	0.	0.	0.	3.	-1419.	-275.	54.13
09-22-83	89.	285.	950.	1142.	3622.	38.	0.	334.	18.	434.	708.	7.	3.	0.	0.	0.	3.	-2115.	-793.	54.03
09-23-83	53.	371.	897.	1059.	3562.	38.	0.	266.	17.	351.	708.	7.	3.	0.	0.	0.	3.	-2151.	-560.	53.92
09-24-83	0.	185.	813.	728.	3479.	45.	0.	204.	15.	294.	434.	7.	3.	0.	0.	0.	3.	-1987.	-140.	53.81
09-25-83	0.	428.	805.	541.	3457.	35.	0.	152.	13.	256.	286.	7.	3.	0.	0.	0.	3.	-1679.	647.	53.72
09-26-83	0.	399.	704.	486.	2075.	30.	0.	112.	12.	226.	260.	7.	3.	0.	0.	0.	3.	-836.	282.	53.64
09-27-83	0.	314.	274.	432.	470.	29.	0.	82.	11.	196.	236.	7.	3.	0.	0.	0.	3.	-98.	-156.	53.63
09-28-83	0.	328.	0.	377.	0.	30.	0.	62.	10.	175.	202.	7.	3.	0.	0.	0.	3.	147.	-17.	53.63
09-29-83	36.	371.	0.	339.	0.	28.	0.	50.	10.	155.	184.	7.	3.	0.	0.	0.	3.	246.	141.	53.65
TOTAL:	9559.	15005.	35024.	8503.	18526.	1598.	101.	6359.	306.	9277.	9249.	194.	76.	0.	13.	3.	81.	5655.	-2637.	

TOTAL INFLOW = 51819. ACRE-FT
TOTAL OUTFLOW = 43527. ACRE-FT
TOTAL SEEPAGE = 194. ACRE-FT
STORAGE CHANGE = 5655. ACRE-FT
RESIDUE INFLOW = -2637. ACRE-FT
MEAN LAKE STAGE = 53.86 FT
MEAN LAKE AREA = 19931. ACRE
MEAN LAKE VOLUME = 123305. ACRE-FT

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WATER BUDGET OF LAKE CYPRESS SEP,1982

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
SEP	02	0	63	0	0	103	2	406	51.50	4082	-184	181
SEP	03	0	72	0	0	96	2	869	51.46	4074	-102	740
SEP	04	21	77	0	0	91	2	1053	51.45	4072	-61	955
SEP	05	7	72	0	0	86	2	905	51.43	4068	-41	841
SEP	06	176	106	0	0	86	2	715	51.43	4068	81	639
SEP	07	86	43	0	0	116	2	433	51.47	4076	387	660
SEP	08	233	72	0	0	216	2	9	51.62	4105	513	143
SEP	09	29	46	738	0	237	2	0	51.72	4125	495	-464
SEP	10	143	63	1212	397	255	2	1587	51.86	4152	353	-6
SEP	11	4	57	1214	595	314	2	1877	51.89	4158	21	-174
SEP	12	0	66	1208	793	307	2	1946	51.87	4154	-83	-381
SEP	13	21	49	1226	1099	286	2	1535	51.85	4150	0	-1051
SEP	14	21	106	1212	1317	253	2	800	51.87	4154	145	-1754
SEP	15	0	46	1202	968	282	2	953	51.92	4164	62	-1392
SEP	16	0	97	1202	726	189	2	930	51.90	4160	-208	-1300
SEP	17	0	63	446	397	165	2	861	51.82	4144	-290	-377
SEP	18	0	80	0	198	148	2	1350	51.76	4133	-124	957
SEP	19	47	57	0	0	137	2	2039	51.76	4133	41	1953
SEP	20	54	60	0	0	127	2	2232	51.78	4137	124	2234
SEP	21	240	63	0	0	127	2	2044	51.82	4144	373	2111
SEP	22	183	6	0	0	147	2	1836	51.96	4171	375	1886
SEP	23	0	11	811	0	153	2	1910	52.00	4179	42	997
SEP	24	0	40	1198	0	143	2	2157	51.98	4175	0	854
SEP	25	176	37	1014	0	133	2	2153	52.00	4179	522	1389
SEP	26	749	43	1000	190	171	2	1679	52.23	4223	739	349
SEP	27	0	46	1880	377	208	2	1743	52.35	4246	488	-190
SEP	28	0	57	2638	760	202	2	3027	52.46	4267	299	-219
SEP	29	0	75	2648	595	189	2	3173	52.49	4272	150	-37
SEP	30	47	69	2602	595	182	2	2608	52.53	4280	86	-665
SUBTOTAL		2236	1743	23451	9007	5150	58	42832			4205	8877

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	39903.	44574.	4153.	26013.	51.87

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS OCT,1982

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
OCT	01	344	60	2057	557	186	2	2165	52.53	4280	-43	-964
OCT	02	29	52	1704	387	244	2	1689	52.51	4276	0	-625
OCT	03	0	66	1682	385	227	2	1668	52.53	4280	86	-477
OCT	04	0	32	1954	169	208	2	1594	52.55	4284	150	-557
OCT	05	681	63	1835	0	215	2	1452	52.60	4293	601	-617
OCT	06	61	72	1666	411	284	2	2314	52.83	4336	716	677
OCT	07	0	80	1656	541	304	2	2317	52.93	4355	174	67
OCT	08	4	52	1668	157	295	2	1991	52.91	4351	-109	-192
OCT	09	0	63	1660	0	276	2	2309	52.88	4346	-152	282
OCT	10	0	57	1654	0	253	2	2273	52.84	4338	-217	204
OCT	11	36	57	1019	0	232	2	1143	52.78	4327	-238	-326
OCT	12	0	72	222	0	209	2	0	52.73	4318	-43	-404
OCT	13	0	69	0	0	185	2	190	52.76	4323	86	159
OCT	14	0	54	4	0	166	2	180	52.77	4325	-87	-24
OCT	15	0	29	202	113	153	2	532	52.72	4316	-324	-232
OCT	16	0	75	353	196	141	2	2056	52.62	4297	-580	859
OCT	17	0	11	363	196	132	2	2149	52.45	4265	-746	721
OCT	18	0	46	373	103	122	2	543	52.27	4231	-529	-540
OCT	19	0	52	518	0	112	2	82	52.20	4217	-169	-667
OCT	20	7	63	605	0	104	2	0	52.19	4215	42	-613
OCT	21	0	49	599	0	98	2	0	52.22	4221	169	-481
OCT	22	0	54	879	0	92	2	0	52.27	4231	148	-770
OCT	23	39	54	1073	0	87	2	0	52.29	4234	21	-1125
OCT	24	0	17	1079	0	84	2	0	52.28	4233	63	-1084
OCT	25	0	23	421	0	78	2	0	52.32	4240	127	-350
OCT	26	0	40	0	0	74	2	0	52.34	4244	-21	-57
OCT	27	0	40	0	0	70	2	0	52.31	4238	-21	-53
OCT	28	0	46	0	0	67	2	0	52.33	4242	148	125
OCT	29	0	52	0	0	64	2	0	52.38	4252	128	113
OCT	30	4	49	0	0	60	2	0	52.39	4253	43	25
OCT	31	0	37	0	0	57	2	0	52.40	4255	85	64
SUBTOTAL		1204	1585	25246	3215	4878	60	26648			-491	-6861

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	34603.	28233.	4278.	28747.	52.52

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS NOV,1982

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
NOV	01	21	14	0	0	54	1	0	52.43	4261	107	44
NOV	02	68	34	0	0	54	1	0	52.45	4265	128	39
NOV	03	54	34	0	0	64	1	0	52.49	4272	299	214
NOV	04	7	20	0	0	70	1	258	52.59	4291	-21	178
NOV	05	0	23	2	0	64	1	0	52.48	4270	-363	-407
NOV	06	0	43	2	0	54	1	0	52.42	4259	-64	-78
NOV	07	0	3	0	0	47	1	0	52.45	4265	128	82
NOV	08	0	77	0	0	42	1	0	52.48	4270	64	98
NOV	09	0	37	0	0	39	1	0	52.48	4270	21	18
NOV	10	0	43	0	0	37	1	0	52.49	4272	43	48
NOV	11	0	46	0	0	35	1	0	52.50	4274	43	52
NOV	12	0	52	0	0	34	1	0	52.51	4276	-21	-5
NOV	13	0	43	0	0	33	1	0	52.49	4272	-21	-13
NOV	14	0	40	0	0	32	1	53	52.50	4274	-21	38
NOV	15	0	32	0	0	32	1	53	52.48	4270	-43	8
NOV	16	57	26	0	0	32	1	82	52.48	4270	128	146
NOV	17	4	29	0	0	31	1	290	52.54	4282	107	389
NOV	18	0	43	0	0	31	1	201	52.53	4280	-86	126
NOV	19	0	40	0	0	31	1	141	52.50	4274	-85	64
NOV	20	0	43	0	0	30	1	81	52.49	4272	-43	50
NOV	21	0	37	0	0	29	1	0	52.48	4270	-85	-78
NOV	22	0	46	0	0	27	1	0	52.45	4265	-43	-26
NOV	23	0	40	0	0	27	1	0	52.46	4267	21	33
NOV	24	0	37	0	0	26	1	0	52.46	4267	-21	-11
NOV	25	0	37	0	0	25	1	0	52.45	4265	-43	-32
NOV	26	0	46	0	0	25	1	0	52.44	4263	21	41
NOV	27	0	37	0	0	24	1	0	52.46	4267	64	76
NOV	28	0	60	0	0	24	1	0	52.47	4269	85	120
NOV	29	0	23	0	0	23	1	77	52.50	4274	0	75
NOV	30	0	54	0	0	23	1	0	52.47	4269	-21	9
SUBTOTAL		211	1141	4	0	1098	44	1236			277	1296

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	1357.	2376.	4271.	28573.	52.48

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS DEC,1982

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
DEC	01	4	32	0	0	22	2	0	52.49	4272	43	47
DEC	02	0	29	0	0	22	2	0	52.49	4272	0	5
DEC	03	0	54	0	0	22	2	0	52.49	4272	0	31
DEC	04	0	54	0	0	21	2	0	52.49	4272	43	75
DEC	05	0	60	0	0	20	2	0	52.51	4276	0	39
DEC	06	0	43	0	0	19	2	0	52.49	4272	-64	-42
DEC	07	50	34	0	0	19	2	0	52.48	4270	0	-36
DEC	08	39	34	0	0	20	2	0	52.49	4272	-21	-48
DEC	09	0	34	0	0	20	2	0	52.47	4269	406	418
DEC	10	29	29	0	0	19	2	463	52.68	4308	215	657
DEC	11	0	23	0	0	20	2	134	52.57	4287	-193	-57
DEC	12	183	40	6	0	20	2	198	52.59	4291	-408	-380
DEC	13	0	29	6	0	20	2	0	52.38	4252	-234	-232
DEC	14	0	34	0	0	21	2	0	52.48	4270	320	333
DEC	15	0	20	0	0	20	2	0	52.53	4280	193	192
DEC	16	172	46	2	0	19	2	135	52.57	4287	-64	-78
DEC	17	0	11	4	0	19	2	136	52.50	4274	-235	-112
DEC	18	0	37	2	0	18	2	0	52.46	4267	21	37
DEC	19	0	20	0	0	17	2	132	52.51	4276	21	154
DEC	20	0	26	0	0	16	2	72	52.47	4269	-128	-49
DEC	21	0	37	0	0	16	2	42	52.45	4265	-43	19
DEC	22	0	32	0	0	15	2	189	52.45	4265	0	204
DEC	23	0	37	0	0	15	2	307	52.45	4265	21	349
DEC	24	0	26	0	0	15	2	365	52.46	4267	-21	354
DEC	25	0	43	0	0	15	2	218	52.44	4263	-21	223
DEC	26	0	43	0	0	14	2	677	52.45	4265	64	769
DEC	27	0	46	0	0	14	2	2599	52.47	4269	64	2694
DEC	28	0	26	0	0	14	2	2599	52.48	4270	21	2631
DEC	29	0	40	0	0	13	2	2273	52.48	4270	0	2298
DEC	30	0	26	0	0	13	2	1734	52.48	4270	-64	1681
DEC	31	0	29	2	0	13	2	1147	52.45	4265	-85	1074
SUBTOTAL		477	1075	22	0	549	50	13419			-149	13246

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	1098.	14494.	4272.	28615.	52.49

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS JAN,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MST61	AREA1	DSTOR1	RES1
JAN	01	0	17	2	0	13	2	1039	52.44	4263	107	1146
JAN	02	4	23	2	0	13	2	2441	52.50	4274	64	2507
JAN	03	0	26	2	0	13	2	2184	52.47	4269	-235	1958
JAN	04	0	23	4	0	13	2	1758	52.39	4253	-85	1678
JAN	05	7	29	2	0	13	2	1807	52.43	4261	64	1876
JAN	06	4	6	2	0	12	2	1482	52.42	4259	0	1468
JAN	07	0	29	2	0	12	2	1154	52.43	4261	21	1189
JAN	08	0	11	2	0	12	2	677	52.43	4261	107	779
JAN	09	0	34	0	0	12	2	152	52.48	4270	85	258
JAN	10	115	26	0	0	13	2	0	52.47	4269	21	-82
JAN	11	4	17	2	0	13	2	0	52.49	4272	-21	-24
JAN	12	0	29	6	0	13	2	103	52.46	4267	-149	-38
JAN	13	0	43	2	0	12	2	831	52.42	4259	-43	816
JAN	14	0	29	0	0	11	2	1691	52.44	4263	107	1814
JAN	15	0	23	2	0	10	2	1894	52.47	4269	-107	1796
JAN	16	0	49	2	0	10	2	******	52.39	4253	-85	*******
JAN	17	0	29	0	0	10	2	******	52.43	4261	21	*******
JAN	18	0	37	0	0	9	2	******	52.40	4255	-106	*******
JAN	19	0	54	0	0	9	2	******	52.38	4252	128	*******
JAN	20	538	14	0	0	11	2	******	52.46	4267	512	*******
JAN	21	143	3	89	343	17	2	******	52.62	4297	322	*******
JAN	22	43	17	149	589	21	2	******	52.61	4295	0	*******
JAN	23	43	23	149	575	23	2	******	52.62	4297	-43	*******
JAN	24	4	14	65	242	24	2	******	52.59	4291	-150	*******
JAN	25	0	23	10	0	23	2	******	52.55	4284	-171	*******
JAN	26	0	23	10	0	22	2	******	52.51	4276	-86	*******
JAN	27	14	34	8	0	22	2	******	52.51	4276	-128	*******
JAN	28	29	20	12	0	22	2	******	52.45	4265	-128	*******
JAN	29	0	29	10	0	22	2	******	52.45	4265	0	*******
JAN	30	0	23	12	0	23	2	******	52.45	4265	0	*******
JAN	31	0	32	12	0	23	2	******	52.45	4265	-171	*******
SUBTOTAL		946	788	557	1749	476	50	******			-149	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	3778.	**********	4269.	28534.	52.47

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(3)*****MISSING RECORD.

WATER BUDGET OF LAKE CYPRESS FEB,1983

	MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
	FEB	01	11	34	8	0	23	2	******	52.37	4250	-170	*******
	FEB	02	713	83	26	0	36	2	******	52.37	4250	297	*******
	FEB	03	0	77	579	0	58	2	******	52.51	4276	43	*******
	FEB	04	0	72	1142	0	67	2	******	52.39	4253	-319	*******
	FEB	05	0	34	1137	0	72	2	******	52.36	4248	42	*******
	FEB	06	469	46	1123	0	79	2	******	52.41	4257	298	*******
	FEB	07	25	52	1305	0	99	2	******	52.50	4274	21	*******
	FEB	08	0	54	1418	0	98	2	******	52.42	4259	-277	*******
	FEB	09	0	37	1414	0	89	2	******	52.37	4250	-149	*******
	FEB	10	111	34	1414	119	84	2	******	52.35	4246	-106	*******
	FEB	11	0	46	1579	303	84	2	******	52.32	4240	-276	*******
	FEB	12	523	54	1742	403	84	2	******	52.22	4221	253	*******
	FEB	13	426	54	1740	397	140	2	******	52.44	4263	1108	*******
	FEB	14	0	52	3217	1099	176	2	******	52.74	4319	907	*******
	FEB	15	0	52	4542	1623	189	2	******	52.86	4342	630	*******
	FEB	16	494	40	4733	1621	214	2	******	53.03	4374	962	*******
	FEB	17	7	9	4552	1623	247	2	******	53.30	4425	841	*******
	FEB	18	0	46	4435	1615	242	2	******	53.41	4446	400	*******
	FEB	19	0	49	4338	1607	228	2	******	53.48	4459	245	*******
	FEB	20	0	32	4286	1597	215	2	******	53.52	4467	134	*******
	FEB	21	0	54	4207	1583	198	2	******	53.54	4470	89	*******
	FEB	22	57	29	4114	1129	182	2	******	53.56	4474	22	*******
	FEB	23	4	23	4179	301	168	2	******	53.55	4472	-335	*******
	FEB	24	0	63	4209	0	155	2	******	53.41	4446	-511	*******
	FEB	25	0	57	4221	0	143	2	******	53.32	4429	-598	*******
	FEB	26	0	66	4267	0	131	2	******	53.14	4395	-483	*******
	FEB	27	387	40	4122	0	128	2	******	53.10	4387	526	*******
	FEB	28	197	6	3166	452	132	2	******	53.38	4440	821	*******
SUBTOTAL			3426	1296	77214	15469	3762	47	******			4418	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	99918.	**********	4344.	30267.	52.87

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(4)*****MISSING RECORD.

WATER BUDGET OF LAKE CYPRESS MAR,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
MAR	01	57	20	1613	575	132	2	******	53.47	4457	-223	*******
MAR	02	0	23	1135	393	126	2	******	53.28	4421	-729	*******
MAR	03	0	40	387	159	121	2	******	53.14	4395	-549	*******
MAR	04	0	43	147	0	115	2	******	53.03	4374	-437	*******
MAR	05	0	57	149	0	109	2	******	52.94	4357	-392	*******
MAR	06	0	43	151	0	102	2	******	52.85	4340	-347	*******
MAR	07	215	32	561	524	99	2	******	52.78	4327	-22	*******
MAR	08	0	40	1137	1006	108	2	******	52.84	4338	0	*******
MAR	09	0	26	1367	1146	112	2	******	52.78	4327	-238	*******
MAR	10	36	57	1696	1141	111	2	******	52.73	4318	-302	*******
MAR	11	0	60	1920	1139	106	2	******	52.64	4301	-559	*******
MAR	12	0	40	1948	1133	99	2	******	52.47	4269	-662	*******
MAR	13	0	34	1946	1131	93	2	******	52.33	4242	-551	*******
MAR	14	0	29	1960	510	85	2	******	52.21	4219	-570	*******
MAR	15	326	32	1995	0	85	2	******	52.06	4191	-419	*******
MAR	16	7	0	2009	113	96	2	3339	52.01	4181	63	1174
MAR	17	111	69	2265	528	99	2	2749	52.09	4196	566	380
MAR	18	0	43	2521	661	95	2	3777	52.28	4233	-42	499
MAR	19	0	32	2565	581	91	2	4409	52.07	4192	-713	489
MAR	20	25	46	2590	575	90	2	4681	51.94	4167	-146	1298
MAR	21	140	40	3275	575	89	2	4095	52.00	4179	-125	-72
MAR	22	0	75	3705	579	88	2	4337	51.88	4156	-436	-400
MAR	23	0	49	3677	573	89	2	4116	51.79	4138	248	71
MAR	24	265	37	3608	557	98	2	4600	52.00	4179	188	295
MAR	25	0	63	3606	563	98	2	4266	51.88	4156	-416	-356
MAR	26	0	43	3539	573	97	2	3768	51.80	4140	83	-316
MAR	27	545	63	3467	563	109	2	4005	51.92	4164	520	-98
MAR	28	0	6	3507	571	137	2	4158	52.05	4189	230	177
MAR	29	0	72	3499	577	143	2	4077	52.03	4185	-84	-156
MAR	30	50	49	3481	692	144	2	3981	52.01	4181	125	-214
MAR	31	79	46	3487	762	152	2	4237	52.09	4196	63	-135
SUBTOTAL		1856	1307	68911	17899	3318	63	******			-5875	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	92048.	**********	4249.	28114.	52.37

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(4)*****MISSING RECORD.

WATER BUDGET OF LAKE CYPRESS APR,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MST61	AREA1	DSTOR1	RES1
APR	01	0	72	3491	746	157	2	4091	52.04	4187	-21	-254
APR	02	4	66	3384	722	153	2	4220	52.08	4194	105	126
APR	03	0	14	3390	726	151	2	4306	52.09	4196	-210	-158
APR	04	0	83	3392	740	146	2	4056	51.98	4175	-313	-454
APR	05	0	75	3360	754	140	2	4085	51.94	4167	-208	-304
APR	06	0	72	3356	623	132	2	3978	51.88	4156	-249	-312
APR	07	254	77	3332	530	124	2	3857	51.82	4144	-83	-390
APR	08	47	63	3308	530	120	2	3894	51.84	4148	-21	-70
APR	09	269	46	3314	532	122	2	3870	51.81	4142	186	-137
APR	10	129	43	3346	561	142	2	4077	51.93	4166	187	127
APR	11	0	83	3318	674	145	2	4157	51.90	4160	-125	-24
APR	12	0	75	3301	738	139	2	4152	51.87	4154	-208	-161
APR	13	0	75	3261	734	132	2	3949	51.80	4140	-228	-333
APR	14	0	89	3213	571	126	2	4751	51.76	4133	-124	803
APR	15	140	72	3211	583	121	2	3848	51.74	4129	-83	-221
APR	16	0	66	3253	738	123	2	4156	51.72	4125	-289	-183
APR	17	0	95	3279	726	114	2	4033	51.60	4101	-246	-239
APR	18	143	80	3184	714	101	2	3953	51.60	4101	103	-8
APR	19	82	89	3118	702	93	2	2009	51.65	4111	103	-1798
APR	20	0	69	3037	488	86	2	3264	51.65	4111	-62	-342
APR	21	0	57	3009	244	80	2	4049	51.62	4105	-287	484
APR	22	0	66	2989	69	75	2	4415	51.51	4084	-327	1018
APR	23	104	66	2914	0	71	2	4794	51.46	4074	-41	1728
APR	24	0	37	3037	0	70	2	3763	51.49	4080	-592	100
APR	25	0	115	2259	214	73	2	2859	51.17	4016	-1185	-759
APR	26	0	103	1791	363	67	2	2086	50.90	3960	-752	-787
APR	27	0	69	1500	355	61	2	1725	50.79	3937	-413	-538
APR	28	0	103	1319	186	58	2	1410	50.69	3916	-392	-444
APR	29	0	80	1335	0	52	2	1237	50.59	3895	-351	-422
APR	30	0	95	1349	0	48	2	1802	50.51	3878	-291	207
SUBTOTAL		1172	2193	87349	14563	3220	66	106845			-6414	-3746

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	106370.	109038.	4096.	24842.	51.58

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS MAY,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
MAY	01	0	72	1359	0	42	2	1259	50.44	3862	-309	-381
MAY	02	0	75	1367	0	38	2	1231	50.35	3843	-173	-275
MAY	03	0	83	1682	0	32	2	1620	50.35	3843	-58	-71
MAY	04	29	75	1884	0	30	2	1884	50.32	3836	-326	-313
MAY	05	0	34	1575	0	30	2	1484	50.18	3805	-533	-621
MAY	06	0	72	1384	0	28	2	1187	50.04	3773	-396	-553
MAY	07	0	97	1379	0	27	2	1507	49.97	3757	-244	-47
MAY	08	0	106	1384	0	25	2	1219	49.91	3744	-318	-404
MAY	09	0	77	783	0	21	2	808	49.80	3718	-409	-330
MAY	10	0	86	397	0	19	2	377	49.69	3692	-295	-250
MAY	11	0	106	393	0	19	2	350	49.64	3680	-110	-67
MAY	12	0	86	395	0	11	2	392	49.63	3678	-92	-22
MAY	13	0	80	395	0	0	2	339	49.59	3668	-73	-51
MAY	14	0	106	393	0	0	2	427	49.59	3668	0	139
MAY	15	0	100	389	0	0	2	425	49.59	3668	37	171
MAY	16	0	80	389	0	0	2	648	49.61	3673	-220	117
MAY	17	0	77	543	93	0	2	551	49.47	3639	-309	-320
MAY	18	0	80	932	171	0	2	362	49.44	3632	91	-572
MAY	19	0	89	1091	169	0	2	1025	49.52	3651	183	35
MAY	20	0	77	1087	167	0	2	1066	49.54	3656	18	-94
MAY	21	0	92	1077	165	0	2	1058	49.53	3654	0	-94
MAY	22	0	106	1067	161	0	2	1136	49.54	3656	-18	-6
MAY	23	0	89	1073	157	0	2	1136	49.52	3651	-91	-99
MAY	24	0	52	1077	61	0	2	1055	49.49	3644	-109	-143
MAY	25	0	49	785	0	0	2	751	49.46	3636	-127	-115
MAY	26	0	97	742	0	0	2	743	49.42	3627	-218	-121
MAY	27	0	109	833	0	0	2	665	49.34	3607	-126	-188
MAY	28	0	92	817	0	0	2	613	49.35	3609	144	30
MAY	29	0	92	801	0	0	2	736	49.42	3627	127	151
MAY	30	351	77	803	0	0	2	737	49.42	3627	199	-142
MAY	31	32	66	797	0	0	2	806	49.53	3654	128	169
SUBTOTAL		412	2580	29074	1142	322	65	27599			-3630	-4467

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	31016.	30179.	3693.	17511.	49.70

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS JUN,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MST61	AREA1	DSTOR1	RES1
JUN	01	0	54	256	0	0	3	383	49.49	3644	-219	-39
JUN	02	0	75	0	0	0	3	46	49.41	3624	-91	28
JUN	03	254	66	0	0	0	3	46	49.44	3632	91	-54
JUN	04	0	86	0	0	0	3	203	49.46	3636	0	286
JUN	05	7	83	0	0	0	3	158	49.44	3632	73	304
JUN	06	258	63	0	0	0	3	248	49.50	3646	292	343
JUN	07	487	66	0	0	0	3	274	49.60	3670	440	291
JUN	08	1147	86	0	0	3	3	372	49.74	3704	463	-231
JUN	09	0	77	0	0	13	3	151	49.85	3730	75	288
JUN	10	0	69	0	0	17	3	0	49.78	3713	-56	-6
JUN	11	0	86	0	0	36	3	72	49.82	3723	149	268
JUN	12	100	89	0	0	42	3	123	49.86	3732	187	253
JUN	13	82	106	0	0	44	3	148	49.92	3746	131	257
JUN	14	4	57	0	0	42	3	76	49.93	3748	37	123
JUN	15	0	80	0	0	40	3	0	49.94	3751	56	94
JUN	16	0	95	0	0	38	3	0	49.96	3755	19	73
JUN	17	4	89	0	0	34	3	0	49.95	3753	19	67
JUN	18	0	100	0	0	32	3	0	49.97	3757	56	122
JUN	19	0	86	0	0	28	3	0	49.98	3760	38	93
JUN	20	68	100	0	0	21	3	0	49.99	3762	150	159
JUN	21	147	34	0	0	7	3	79	50.06	3778	151	108
JUN	22	82	49	0	0	7	3	30	50.07	3780	0	-13
JUN	23	90	72	0	0	13	3	0	50.06	3778	0	-33
JUN	24	93	72	0	0	30	3	0	50.07	3780	113	59
JUN	25	32	66	0	0	25	3	0	50.12	3792	227	234
JUN	26	0	57	0	0	19	3	0	50.19	3807	171	207
JUN	27	0	77	0	0	17	3	0	50.21	3812	95	153
JUN	28	0	86	0	0	15	3	36	50.24	3818	95	200
JUN	29	634	95	0	0	17	3	62	50.26	3823	248	-248
JUN	30	1000	83	0	222	29	3	215	50.37	3847	385	-570
SUBTOTAL		4490	2305	256	222	570	76	2725			3398	2813

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	5614.	5030.	3738.	18211.	49.89

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS JUL,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MST61	AREA1	DSTOR1	RES1
JUL	01	14	52	0	605	95	2	238	50.46	3867	309	-117
JUL	02	7	66	0	738	142	2	679	50.53	3882	252	108
JUL	03	229	66	0	726	125	2	242	50.59	3895	331	-443
JUL	04	505	66	0	730	105	2	420	50.70	3918	568	-288
JUL	05	72	75	0	415	102	2	449	50.88	3956	455	389
JUL	06	365	86	0	0	112	2	0	50.93	3966	397	3
JUL	07	641	126	0	0	165	2	0	51.08	3997	939	258
JUL	08	93	72	200	280	165	2	548	51.40	4062	995	874
JUL	09	47	34	353	571	156	2	1391	51.57	4095	512	808
JUL	10	0	66	349	569	148	2	1708	51.65	4111	247	952
JUL	11	0	86	603	563	138	2	1951	51.69	4119	103	833
JUL	12	0	95	772	561	129	2	2148	51.70	4121	-82	697
JUL	13	0	86	780	266	121	2	1831	51.65	4111	-329	420
JUL	14	54	95	793	0	113	2	1543	51.54	4090	-307	369
JUL	15	190	72	799	0	123	2	1220	51.50	4082	-224	-47
JUL	16	0	83	805	0	145	2	1296	51.43	4068	-325	102
JUL	17	0	69	817	0	134	2	1233	51.34	4050	-385	-36
JUL	18	0	97	543	0	118	2	948	51.24	4030	-242	141
JUL	19	0	95	135	0	106	2	299	51.22	4026	-20	130
JUL	20	154	43	0	109	99	2	0	51.23	4028	81	-240
JUL	21	11	95	0	42	88	2	143	51.26	4034	81	176
JUL	22	0	57	0	0	80	2	110	51.27	4036	40	125
JUL	23	0	83	0	0	71	2	103	51.28	4038	101	215
JUL	24	0	83	0	0	61	2	179	51.32	4046	121	320
JUL	25	0	100	0	0	52	2	228	51.34	4050	20	294
JUL	26	25	109	0	0	44	2	168	51.33	4048	-101	104
JUL	27	0	95	0	0	40	2	0	51.29	4040	-40	12
JUL	28	93	77	0	0	34	2	0	51.31	4044	81	29
JUL	29	100	103	0	0	29	2	0	51.33	4048	61	33
JUL	30	68	57	0	0	28	2	48	51.34	4050	-20	-13
JUL	31	43	63	0	0	32	2	0	51.32	4046	61	47
SUBTOTAL		2713	2451	6950	6175	3103	56	19122			3679	6255

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	18997.	21573.	4031.	23488.	51.25

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS AUG,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
AUG	01	111	60	633	333	33	2	620	51.37	4056	223	-208
AUG	02	29	75	1053	573	32	2	1071	51.43	4068	203	-340
AUG	03	7	83	1482	571	29	2	1075	51.47	4076	204	-729
AUG	04	129	80	1757	571	26	2	1610	51.53	4088	184	-612
AUG	05	90	72	1747	567	25	2	1615	51.56	4093	102	-642
AUG	06	100	66	1726	563	24	2	1865	51.58	4097	123	-361
AUG	07	297	80	1714	561	25	2	1950	51.62	4105	267	-302
AUG	08	90	54	2243	557	26	2	2366	51.71	4123	289	-210
AUG	09	122	80	2598	561	32	2	2783	51.76	4133	103	-349
AUG	10	18	49	2581	557	57	2	2811	51.76	4133	-21	-375
AUG	11	25	66	2579	559	69	2	2765	51.75	4131	-62	-465
AUG	12	0	60	2575	230	68	2	2563	51.73	4127	-165	-416
AUG	13	111	97	2596	0	67	2	2389	51.67	4115	-144	-434
AUG	14	104	66	2620	0	73	2	2381	51.66	4113	-21	-373
AUG	15	14	46	2606	218	83	2	2552	51.66	4113	41	-284
AUG	16	0	69	2590	381	94	2	2581	51.68	4117	41	-376
AUG	17	47	77	2583	381	105	2	2610	51.68	4117	-103	-532
AUG	18	18	97	2602	258	100	2	2459	51.63	4107	-288	-711
AUG	19	297	80	1781	184	92	2	1753	51.54	4090	-409	-933
AUG	20	0	60	1273	184	88	2	1790	51.43	4068	-386	-84
AUG	21	0	69	1299	182	82	2	1686	51.35	4052	-284	-94
AUG	22	129	89	1305	69	75	2	1632	51.29	4040	-182	-41
AUG	23	0	80	1299	0	69	2	767	51.26	4034	-61	-583
AUG	24	0	86	1291	0	63	2	1051	51.26	4034	-61	-280
AUG	25	14	66	1279	0	58	2	1115	51.23	4028	-81	-252
AUG	26	0	34	1263	0	53	2	1648	51.22	4026	-181	183
AUG	27	0	77	1271	0	48	2	900	51.14	4009	-241	-585
AUG	28	43	66	1269	0	44	2	1033	51.10	4001	-60	-320
AUG	29	43	86	696	0	40	2	734	51.11	4003	-60	-21
AUG	30	57	57	133	0	37	2	222	51.07	3995	-100	-50
AUG	31	32	75	0	0	35	2	105	51.06	3993	100	210
SUBTOTAL		1928	2204	52448	8065	1753	56	52504			-1026	-10567

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	64249.	54709.	4074.	24342.	51.46

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE CYPRESS SEP,1983

MONTH	DATE	RAIN1	EVAP1	S-61	S-63	REEDY	SEEP	C-36	MSTG1	AREA1	DSTOR1	RES1
SEP	01	226	86	0	0	37	2	187	51.12	4005	340	349
SEP	02	21	63	0	363	45	2	492	51.23	4028	222	345
SEP	03	176	37	0	377	60	2	376	51.23	4028	60	-140
SEP	04	186	49	0	385	59	2	261	51.26	4034	161	-161
SEP	05	0	72	0	387	57	2	356	51.31	4044	40	22
SEP	06	0	72	534	615	56	2	0	51.28	4038	-61	-1195
SEP	07	18	83	861	728	55	2	0	51.28	4038	0	-1580
SEP	08	0	49	1162	355	53	2	0	51.28	4038	0	-1524
SEP	09	0	60	1357	0	51	2	0	51.28	4038	0	-1349
SEP	10	0	69	1347	0	49	2	0	51.28	4038	0	-1329
SEP	11	107	75	1337	0	46	2	0	51.28	4038	0	-1418
SEP	12	68	86	1325	0	44	2	0	51.28	4038	0	-1353
SEP	13	90	63	1319	0	44	2	0	51.28	4038	0	-1391
SEP	14	29	40	1293	0	44	2	0	51.28	4038	303	-1025
SEP	15	7	20	682	0	45	2	0	51.43	4068	692	-25
SEP	16	107	52	367	0	45	2	394	51.62	4105	328	252
SEP	17	0	34	373	0	50	2	270	51.59	4099	-61	-182
SEP	18	86	17	377	0	58	2	270	51.59	4099	123	-112
SEP	19	179	43	952	391	66	2	951	51.65	4111	349	-246
SEP	20	201	57	1916	791	84	2	1777	51.76	4133	558	-602
SEP	21	0	43	3158	758	112	2	3315	51.92	4164	520	-150
SEP	22	25	57	3622	762	113	2	3773	52.01	4181	167	-526
SEP	23	0	75	3562	454	108	2	3451	52.00	4179	-167	-768
SEP	24	0	37	3479	190	99	2	2653	51.93	4166	-187	-1268
SEP	25	0	86	3457	192	87	2	2874	51.91	4162	-250	-1028
SEP	26	0	80	2075	186	77	2	2072	51.81	4142	-704	-892
SEP	27	0	63	470	77	69	2	270	51.57	4095	-696	-982
SEP	28	0	66	0	0	64	2	0	51.47	4076	-204	-204
SEP	29	0	75	0	0	61	2	0	51.47	4076	20	32
SUBTOTAL		1526	1709	35025	7012	1839	58	23743			1555	-18453
TOTAL		22597	22377	406506	84519	30038	751				-204	

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	45459.	25451.	4074.	24342.	51.46

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME CYPRESS RECEIVES 0.3 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA SEP,1982

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MST62	AREA2	DSTOR2	RES2
SEP	02	0	142	240	99	161	4	2	406	2239	51.71	8910	802	2271
SEP	03	0	162	225	97	158	4	2	869	2504	51.79	9001	540	1850
SEP	04	48	175	212	95	157	4	2	1053	2609	51.83	9046	136	1348
SEP	05	81	162	202	93	155	4	2	905	2525	51.82	9035	-181	1064
SEP	06	242	239	201	93	155	4	2	715	2416	51.79	9001	-90	1152
SEP	07	291	97	270	93	160	4	2	433	2254	51.80	9012	0	1097
SEP	08	323	162	503	97	174	4	2	9	2011	51.79	9001	-90	970
SEP	09	154	103	552	99	183	4	2	0	1921	51.78	8990	-180	851
SEP	10	574	142	596	105	192	4	2	1587	2699	51.75	8956	-179	-397
SEP	11	8	129	734	107	194	4	2	1877	2961	51.74	8944	-45	120
SEP	12	0	149	716	105	188	4	2	1946	3208	51.74	8944	89	483
SEP	13	48	110	668	101	184	4	2	1535	2413	51.76	8967	493	475
SEP	14	48	239	591	99	182	4	2	800	2465	51.85	9068	907	1883
SEP	15	0	103	658	97	181	4	2	953	2552	51.96	9189	414	1174
SEP	16	0	220	442	95	179	4	2	930	2539	51.94	9167	92	1198
SEP	17	0	142	386	93	177	4	2	861	2499	51.98	9211	967	2085
SEP	18	0	181	346	93	174	4	2	1350	2779	52.15	9390	1409	2399
SEP	19	194	129	319	91	174	4	2	2039	3174	52.28	9522	809	1290
SEP	20	73	136	297	91	173	4	2	2232	3285	52.32	9561	239	788
SEP	21	582	142	296	91	175	4	2	2044	3177	52.33	9571	96	221
SEP	22	533	13	342	95	184	4	2	1836	3058	52.34	9581	287	361
SEP	23	0	26	358	99	187	4	2	1910	3101	52.39	9629	530	1095
SEP	24	0	91	334	97	185	4	2	2157	3242	52.45	9686	436	989
SEP	25	234	84	309	97	185	4	2	2153	3240	52.48	9714	146	484
SEP	26	1730	97	399	113	206	4	2	1679	2968	52.48	9714	243	-825
SEP	27	0	103	486	117	215	4	2	1743	3005	52.53	9760	1122	1664
SEP	28	0	129	472	117	216	4	2	3027	3741	52.71	9919	1091	1123
SEP	29	0	168	440	115	215	4	2	3173	3824	52.75	9953	50	92
SEP	30	121	155	424	115	216	4	2	2608	3500	52.72	9927	-99	66
SUBTOTAL		5286	3932	12018	2904	5285	115	67	42832	81910			10033	27369

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	68506.	85842.	9323.	51758.	52.10

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA OCT,1982

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
OCT	01	639	136	433	115	217	0	2	2165	3247	52.73	9936	99	-90
OCT	02	81	116	570	117	221	0	2	1689	2974	52.74	9944	50	460
OCT	03	0	149	530	115	222	0	2	1668	2962	52.74	9944	0	573
OCT	04	0	71	485	115	222	0	2	1594	2919	52.74	9944	0	573
OCT	05	808	142	502	115	222	0	2	1452	2838	52.74	9944	0	-121
OCT	06	73	162	664	117	233	0	2	2314	3332	52.74	9944	0	91
OCT	07	0	181	710	117	240	0	2	2317	3423	52.74	9944	0	219
OCT	08	8	116	689	115	241	0	2	1991	3694	52.74	9944	0	765
OCT	09	0	142	644	115	240	0	2	2309	3329	52.74	9944	0	160
OCT	10	0	129	591	113	238	0	2	2273	3308	52.74	9944	0	221
OCT	11	40	129	541	111	237	0	2	1143	2661	52.74	9944	50	765
OCT	12	0	162	487	107	239	0	2	0	1569	52.75	9953	0	896
OCT	13	0	155	431	105	237	0	2	190	1595	52.74	9944	0	784
OCT	14	0	123	387	103	236	0	2	180	1387	52.75	9953	-249	353
OCT	15	0	65	356	103	230	0	2	532	2311	52.69	9902	-990	162
OCT	16	0	168	329	99	222	0	2	2056	3184	52.55	9778	-1369	-724
OCT	17	0	26	307	97	214	0	2	2149	3238	52.41	9648	-1303	-809
OCT	18	0	103	285	95	206	0	2	543	2317	52.28	9522	-952	336
OCT	19	0	116	261	93	200	0	2	82	2053	52.21	9452	-378	1152
OCT	20	8	142	242	93	199	0	2	0	590	52.20	9441	142	329
OCT	21	0	110	228	91	200	0	2	0	0	52.24	9482	664	253
OCT	22	0	123	214	91	202	0	2	0	959	52.34	9581	719	1291
OCT	23	129	123	202	91	202	0	2	0	639	52.39	9629	337	472
OCT	24	0	39	195	91	192	0	2	0	0	52.41	9648	193	-249
OCT	25	0	52	182	87	204	0	2	0	0	52.43	9667	193	-231
OCT	26	0	91	172	85	205	0	2	0	0	52.45	9686	291	-84
OCT	27	0	91	164	85	205	0	2	0	530	52.49	9723	486	650
OCT	28	0	103	157	83	207	0	2	0	1477	52.55	9778	98	1228
OCT	29	0	116	149	81	209	0	2	0	1387	52.51	9742	-244	818
OCT	30	8	110	141	81	206	0	2	0	1298	52.50	9733	49	1018
OCT	31	48	84	133	81	202	0	2	0	1211	52.52	9751	195	1023
SUBTOTAL		1843	3576	11382	3112	6749	0	72	26648	60432			-1920	12281

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	49806.	64008.	9787.	55981.	52.57

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA NOV,1982

	MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTB2	AREA2	DSTOR2	RES2
	NOV	01	24	32	127	81	213	0	2	0	1374	52.54	9769	49	1008
	NOV	02	145	78	125	81	215	0	2	0	1137	52.53	9760	-98	548
	NOV	03	89	78	150	52	219	0	2	0	661	52.52	9751	-49	178
	NOV	04	8	45	162	81	216	0	2	258	652	52.52	9751	-49	-80
	NOV	05	0	52	149	79	210	0	2	0	0	52.51	9742	-146	-535
	NOV	06	0	97	126	75	213	0	2	0	0	52.49	9723	49	-271
	NOV	07	0	6	110	75	215	0	2	0	0	52.52	9751	98	-298
	NOV	08	0	175	99	73	217	0	2	0	0	52.51	9742	97	-119
	NOV	09	0	84	91	73	217	0	2	0	0	52.54	9769	195	-104
	NOV	10	0	97	85	71	217	0	2	0	385	52.55	9778	-49	58
	NOV	11	0	103	81	69	218	0	2	0	540	52.53	9760	-146	126
	NOV	12	0	116	79	69	217	0	2	0	696	52.52	9751	-49	395
	NOV	13	0	97	78	71	214	0	2	0	0	52.52	9751	-146	-415
	NOV	14	0	91	76	69	217	0	2	53	0	52.49	9723	-243	-570
	NOV	15	8	71	74	69	215	0	2	53	0	52.47	9705	-146	-496
	NOV	16	89	58	74	67	218	0	2	82	0	52.46	9695	-97	-572
	NOV	17	0	65	73	67	218	0	2	290	0	52.45	9686	48	-537
	NOV	18	0	97	73	69	217	0	2	201	0	52.47	9705	49	-417
	NOV	19	0	91	71	67	216	0	2	141	0	52.46	9695	0	-407
	NOV	20	0	97	70	67	216	0	2	81	0	52.47	9705	97	-243
	NOV	21	0	84	67	67	215	0	2	0	0	52.48	9714	0	-268
	NOV	22	0	103	64	67	212	0	2	0	0	52.47	9705	49	-194
	NOV	23	0	91	62	67	212	0	2	0	596	52.49	9723	97	440
	NOV	24	0	84	60	67	212	0	2	0	673	52.49	9723	49	464
	NOV	25	0	84	59	67	213	0	2	0	752	52.50	9733	97	592
	NOV	26	0	103	57	67	212	0	2	0	672	52.51	9742	49	485
	NOV	27	0	84	57	65	214	0	2	0	987	52.51	9742	-97	636
	NOV	28	0	136	56	63	216	0	2	0	985	52.49	9723	-146	638
	NOV	29	0	52	54	63	214	0	2	77	807	52.48	9714	49	497
	NOV	30	0	123	53	63	215	0	2	0	903	52.50	9733	146	839
SUBTOTAL			364	2574	2561	2093	6450	0	67	1236	11820			-244	1380

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	12770.	14394.	9732.	55354.	52.50

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA DEC,1982

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
DEC	01	8	71	52	61	216	5	2	0	986	52.51	9742	49	761
DEC	02	0	65	52	61	217	5	2	0	987	52.51	9742	146	860
DEC	03	0	123	51	61	219	5	2	0	1464	52.54	9769	98	1346
DEC	04	0	123	49	60	218	5	2	0	1380	52.53	9760	-98	1071
DEC	05	0	136	47	60	217	5	2	0	1455	52.52	9751	0	1260
DEC	06	0	97	45	60	215	5	2	0	1136	52.53	9760	49	957
DEC	07	65	78	44	60	213	5	2	0	501	52.53	9760	0	191
DEC	08	48	78	46	58	215	5	2	0	503	52.53	9760	0	207
DEC	09	0	78	47	58	213	5	2	0	0	52.53	9760	0	-247
DEC	10	40	65	45	58	216	5	2	463	880	52.53	9760	0	116
DEC	11	0	52	46	56	218	5	2	134	1009	52.53	9760	0	600
DEC	12	340	91	46	60	214	5	2	198	0	52.53	9760	0	-773
DEC	13	0	65	46	60	214	5	2	0	0	52.53	9760	0	-262
DEC	14	0	78	48	58	214	5	2	0	0	52.53	9760	49	-200
DEC	15	0	45	46	56	219	5	2	0	980	52.54	9769	0	698
DEC	16	331	103	44	60	217	5	2	135	693	52.53	9760	-390	-387
DEC	17	0	26	44	61	209	5	2	136	0	52.46	9695	-339	-771
DEC	18	0	84	42	58	211	5	2	0	0	52.46	9695	48	-185
DEC	19	0	45	40	58	213	5	2	132	0	52.47	9705	-49	-452
DEC	20	0	58	38	58	210	5	2	72	0	52.45	9686	-145	-471
DEC	21	0	84	37	58	210	5	2	42	0	52.44	9677	-290	-559
DEC	22	0	71	35	56	211	5	2	189	0	52.39	9629	-433	-860
DEC	23	0	84	35	56	212	5	2	307	0	52.35	9591	-240	-772
DEC	24	0	58	34	56	214	5	2	365	0	52.34	9581	96	-522
DEC	25	0	97	34	54	215	5	2	218	0	52.37	9610	2066	1636
DEC	26	0	97	33	56	213	5	2	677	2394	52.77	9969	3738	5244
DEC	27	0	103	32	54	215	5	2	2599	3496	53.12	10236	1791	2484
DEC	28	0	58	32	54	214	5	2	2599	3495	53.12	10236	-307	341
DEC	29	0	91	31	54	213	5	2	2273	3308	53.06	10194	-816	6
DEC	30	0	58	31	54	212	5	2	1734	3000	52.96	10120	-1063	-43
DEC	31	0	65	31	54	212	5	2	1147	2663	52.85	10034	-652	626
SUBTOTAL		833	2425	1282	1777	6640	148	65	13419	30330			3308	11900

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	24163.	32755.	9800.	56140.	52.58

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA JAN,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
JAN	01	0	39	31	54	211	0	2	1039	2601	52.83	10018	1352	2656
JAN	02	8	52	31	54	213	0	2	2441	3405	53.12	10236	1535	2244
JAN	03	0	58	31	54	209	0	2	2184	3257	53.13	10243	-154	682
JAN	04	0	52	30	52	208	0	2	1758	3013	53.09	10215	-255	760
JAN	05	8	65	29	52	208	0	2	1807	3042	53.08	10208	-408	591
JAN	06	0	13	29	52	209	0	2	1482	2855	53.01	10157	-813	282
JAN	07	0	65	28	50	209	0	2	1154	2667	52.92	10089	-958	330
JAN	08	0	26	28	50	210	0	2	677	2394	52.82	10010	-1101	351
JAN	09	0	78	29	50	212	0	2	152	2093	52.70	9910	-1041	685
JAN	10	194	58	29	50	212	0	2	0	1276	52.61	9832	-688	159
JAN	11	8	39	30	52	211	0	2	0	558	52.56	9787	-881	-587
JAN	12	0	65	29	50	207	0	2	103	0	52.43	9667	-2030	-2357
JAN	13	0	97	27	50	208	0	2	831	0	52.14	9380	-2673	-3693
JAN	14	0	65	25	48	209	0	2	1691	0	51.86	9079	-1453	-3363
JAN	15	0	52	24	48	206	0	2	1894	0	51.82	9035	******	*******
JAN	16	0	110	23	46	206	0	2	******	******	*******	******	******	*******
JAN	17	0	65	22	46	207	0	2	******	******	*******	******	******	*******
JAN	18	0	84	22	46	207	0	2	******	******	*******	******	******	*******
JAN	19	0	123	21	44	210	0	2	******	******	*******	******	******	*******
JAN	20	1107	32	26	48	222	0	2	******	******	*******	******	******	*******
JAN	21	283	6	40	56	223	0	2	******	******	*******	******	******	*******
JAN	22	48	39	49	58	223	0	2	******	******	*******	******	******	*******
JAN	23	81	52	54	58	221	0	2	******	******	*******	******	******	*******
JAN	24	0	32	55	58	220	0	2	******	******	*******	******	******	*******
JAN	25	0	52	53	58	217	0	2	******	******	*******	******	******	*******
JAN	26	0	52	51	58	215	0	2	******	******	*******	******	******	*******
JAN	27	73	78	51	58	212	0	2	******	******	*******	******	******	*******
JAN	28	32	45	52	58	209	0	2	******	******	*******	******	******	*******
JAN	29	0	65	52	58	208	0	2	******	******	*******	******	******	*******
JAN	30	0	52	53	58	206	0	2	******	******	*******	******	******	*******
JAN	31	0	71	54	58	205	0	2	******	******	*******	******	******	*******
SUBTOTAL		1843	1778	1110	1619	6553	7	63	******	******			******	*******

SUMMARY: INFLOW EXFLOW AREA VOLUME STAGE

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NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(4)*******MISSING RECORD.

WATER BUDGET OF LAKE HATCHINIHA FEB,1983

	MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
	FEB	01	24	78	54	56	210	1	3	******	******	*******	******	******	*******
	FEB	02	1196	188	83	63	214	1	3	******	******	*******	******	******	*******
	FEB	03	0	175	136	73	205	1	3	******	******	*******	******	******	*******
	FEB	04	0	162	157	71	208	1	3	******	******	*******	******	******	*******
	FEB	05	0	78	167	71	209	1	3	******	******	*******	******	******	*******
	FEB	06	1067	103	185	75	212	1	3	******	******	*******	******	******	*******
	FEB	07	65	116	231	87	214	1	3	******	******	*******	******	******	*******
	FEB	08	0	123	228	85	212	1	3	******	******	*******	******	******	*******
	FEB	09	0	84	208	83	211	1	3	******	******	*******	******	******	*******
	FEB	10	291	78	195	83	211	1	3	******	******	*******	******	******	*******
	FEB	11	0	103	197	87	206	1	3	******	******	*******	******	******	*******
	FEB	12	946	123	196	87	202	1	3	******	******	*******	******	******	*******
	FEB	13	1059	123	326	109	225	1	3	******	******	*******	******	******	*******
	FEB	14	0	116	410	117	221	1	3	******	******	*******	******	******	*******
	FEB	15	0	116	442	113	227	1	3	******	******	*******	******	******	*******
	FEB	16	986	91	500	119	239	1	3	******	******	*******	******	******	*******
	FEB	17	8	19	576	131	252	1	3	******	******	*******	******	******	*******
	FEB	18	0	103	564	131	257	1	3	******	******	*******	******	******	*******
	FEB	19	24	110	533	131	263	1	3	******	******	*******	******	******	*******
	FEB	20	0	71	501	129	268	1	3	******	******	*******	******	******	*******
	FEB	21	0	123	462	127	270	1	3	******	******	*******	******	******	*******
	FEB	22	105	65	425	127	271	1	3	******	******	*******	******	******	*******
	FEB	23	0	52	393	131	262	1	3	******	******	*******	******	******	*******
	FEB	24	0	142	361	127	257	1	3	******	******	*******	******	******	*******
	FEB	25	0	129	333	127	249	1	3	******	******	*******	******	******	*******
	FEB	26	0	149	306	123	245	1	3	******	******	*******	******	******	*******
	FEB	27	776	91	299	123	259	1	3	******	******	*******	******	******	*******
	FEB	28	372	13	309	133	267	1	3	******	******	*******	******	******	*******
SUBTOTAL			6919	2923	8778	2922	6544	28	75	******	******			******	*******

SUMMARY: INFLOW EXFLOW AREA VOLUME STAGE

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NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(4)*******MISSING RECORD.

WATER BUDGET OF LAKE HATCHINIHA MAR,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
MAR	01	65	45	308	141	256	0	3	******	******	*******	******	******	*******
MAR	02	0	52	293	135	259	0	3	******	******	*******	******	******	*******
MAR	03	0	91	282	135	257	0	3	******	******	*******	******	******	*******
MAR	04	0	97	269	131	253	0	3	******	******	*******	******	******	*******
MAR	05	0	129	254	129	250	0	3	******	******	*******	******	******	*******
MAR	06	0	97	238	127	242	0	3	******	******	*******	******	******	*******
MAR	07	396	71	232	133	233	0	3	******	******	*******	******	******	*******
MAR	08	129	91	252	141	230	0	3	******	******	*******	******	******	*******
MAR	09	0	58	262	141	220	0	3	******	******	*******	******	******	*******
MAR	10	40	129	258	141	210	0	3	******	******	*******	******	******	*******
MAR	11	0	136	247	139	197	0	3	******	******	*******	******	******	*******
MAR	12	0	91	232	135	192	0	3	******	******	*******	******	******	*******
MAR	13	0	78	216	129	192	0	3	******	******	*******	******	******	*******
MAR	14	0	65	199	127	188	0	3	******	******	*******	******	******	*******
MAR	15	695	71	199	131	186	0	3	******	******	*******	******	******	*******
MAR	16	40	0	224	137	187	0	3	3339	3919	51.76	8967	******	*******
MAR	17	218	155	230	139	189	0	3	2749	4668	51.82	9035	-90	1204
MAR	18	0	97	222	145	180	0	3	3777	4564	51.74	8944	-581	-248
MAR	19	0	71	213	141	179	0	3	4409	4533	51.69	8887	-622	-963
MAR	20	24	103	211	139	176	0	3	4681	4689	51.60	8782	-878	-1319
MAR	21	194	91	208	143	165	0	3	4095	5521	51.49	8652	-952	-147
MAR	22	0	168	206	137	160	0	3	4337	4642	51.38	8518	-554	-586
MAR	23	0	110	208	133	161	0	3	4116	3881	51.36	8494	0	-629
MAR	24	558	84	229	141	161	0	3	4600	3218	51.38	8518	85	-2303
MAR	25	0	142	229	137	163	0	3	4266	2992	51.38	8518	383	-1280
MAR	26	0	97	225	131	171	0	3	3768	4640	51.47	8628	475	913
MAR	27	1099	142	254	135	175	0	3	4005	4706	51.49	8652	519	-303
MAR	28	0	13	320	149	182	0	3	4158	3863	51.59	8770	482	-452
MAR	29	0	162	333	147	179	0	3	4077	3596	51.60	8782	220	-761
MAR	30	57	110	335	143	180	0	3	3981	4145	51.64	8829	221	-222
MAR	31	170	103	354	147	180	0	3	4237	3892	51.65	8841	44	-1051
SUBTOTAL		3686	2949	7743	4255	6152	0	89	******	******			******	*******

SUMMARY: INFLOW EXFLOW AREA VOLUME STAGE

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NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(4)*******MISSING RECORD.

WATER BUDGET OF LAKE HATCHINIHA APR,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
APR	01	0	162	365	143	179	63	3	4091	4514	51.65	8841	-177	-345
APR	02	8	149	358	141	180	63	3	4220	4831	51.61	8794	-264	-256
APR	03	0	32	352	141	175	63	3	4306	4303	51.59	8770	-175	-879
APR	04	0	188	341	137	175	63	3	4056	5127	51.57	8747	-350	190
APR	05	0	168	326	135	174	63	3	4085	5817	51.51	8676	-521	678
APR	06	16	162	308	135	171	63	3	3978	5252	51.45	8603	-473	267
APR	07	542	175	288	133	168	63	3	3857	4866	51.40	8543	-214	-226
APR	08	105	142	280	135	168	63	3	3894	4918	51.40	8543	-85	327
APR	09	558	103	285	135	166	63	3	3870	4854	51.38	8518	213	91
APR	10	396	97	331	151	175	63	3	4077	4170	51.45	8603	129	-799
APR	11	0	188	337	149	172	63	3	4157	3905	51.41	8555	-257	-1044
APR	12	0	168	324	145	171	63	3	4152	4912	51.39	8531	-128	96
APR	13	0	168	308	143	169	63	3	3949	5255	51.38	8518	-85	704
APR	14	0	200	293	139	169	63	3	4751	4728	51.37	8506	-340	-828
APR	15	186	162	282	137	163	63	3	3848	5531	51.30	8420	-674	338
APR	16	0	149	287	139	156	63	3	4156	4329	51.21	8308	-706	-1031
APR	17	0	213	266	135	150	63	3	4033	3771	51.13	8207	-328	-994
APR	18	178	181	237	129	150	63	3	3953	2038	51.13	8207	574	-1919
APR	19	186	200	217	129	157	63	3	2009	3157	51.27	8383	922	1516
APR	20	0	155	200	127	161	63	3	3264	3621	51.35	8482	127	85
APR	21	0	129	187	125	158	63	3	4049	4327	51.30	8420	-674	-803
APR	22	0	149	175	121	154	63	3	4415	4536	51.19	8283	-911	-1156
APR	23	162	149	166	117	149	63	3	4794	4753	51.08	8143	-1384	-1936
APR	24	0	84	163	125	131	63	3	3763	4775	50.85	7846	-1412	-801
APR	25	0	259	170	117	127	63	3	2859	3633	50.72	7674	-729	-176
APR	26	0	233	157	115	125	63	3	2086	3001	50.66	7594	-418	267
APR	27	0	155	143	111	123	63	3	1725	3232	50.61	7527	-452	768
APR	28	0	233	134	109	120	63	3	1410	3262	50.54	7433	-557	1099
APR	29	32	181	121	107	116	63	3	1237	3224	50.46	7324	-586	1140
APR	30	0	213	112	105	112	63	3	1802	3039	50.38	7215	-577	478
SUBTOTAL		2368	4947	7513	3907	4665	1878	87	106845	127678			-10511	-5151

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	127265.	132625.	8274.	43898.	51.19

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA MAY,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
MAY	01	0	162	98	103	109	0	3	1259	3176	50.30	7106	-568	1196
MAY	02	0	168	89	101	105	0	3	1231	3174	50.22	6996	-560	1253
MAY	03	0	188	75	99	102	0	3	1620	3309	50.14	6885	-585	1012
MAY	04	89	168	71	99	98	0	3	1884	2823	50.05	6761	-507	240
MAY	05	0	78	71	97	96	0	3	1484	2619	49.99	6677	-434	511
MAY	06	0	162	66	93	94	0	3	1187	2739	49.92	6580	-428	1029
MAY	07	0	220	62	87	92	0	3	1507	2870	49.86	6496	-487	851
MAY	08	0	239	57	85	88	0	3	1219	3185	49.77	6370	-605	1366
MAY	09	0	175	48	83	85	0	3	808	1961	49.67	6231	-405	703
MAY	10	0	194	44	79	83	0	3	377	1118	49.64	6189	-217	508
MAY	11	0	239	44	77	82	0	3	350	1088	49.60	6133	-215	556
MAY	12	0	194	26	73	80	0	3	392	1100	49.57	6091	-152	567
MAY	13	0	181	0	71	79	0	3	339	1130	49.55	6063	-182	637
MAY	14	0	239	0	67	78	0	3	427	1246	49.51	6007	-120	789
MAY	15	0	226	0	65	77	0	3	425	1545	49.51	6007	-240	960
MAY	16	0	181	0	63	74	0	3	648	1216	49.43	5895	-324	283
MAY	17	0	175	0	61	73	0	3	551	980	49.40	5853	-29	436
MAY	18	0	181	0	58	75	0	3	362	1216	49.42	5881	29	929
MAY	19	0	200	0	56	75	0	3	1025	2071	49.41	5867	-29	1083
MAY	20	0	175	0	54	74	0	3	1066	2152	49.41	5867	-29	1100
MAY	21	0	207	0	54	74	0	3	1058	2143	49.40	5853	-117	1044
MAY	22	0	239	0	54	72	0	3	1136	1956	49.37	5812	-145	785
MAY	23	0	200	0	54	70	0	3	1136	1598	49.35	5784	-116	421
MAY	24	0	116	0	54	68	0	3	1055	431	49.33	5756	-29	-662
MAY	25	0	110	0	52	68	0	3	751	432	49.34	5770	-115	-447
MAY	26	0	220	0	50	66	0	3	743	0	49.29	5700	-200	-841
MAY	27	0	246	0	48	66	0	3	665	857	49.27	5672	28	350
MAY	28	0	207	0	48	67	0	3	613	1105	49.30	5714	114	696
MAY	29	0	207	0	48	66	0	3	736	1259	49.31	5728	29	641
MAY	30	776	175	0	50	68	0	3	737	1069	49.31	5728	229	-162
MAY	31	57	149	0	54	71	0	3	806	926	49.39	5839	234	317
SUBTOTAL		921	5820	752	2136	2471	7	96	27599	52490			-6176	18151

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	33983.	58310.	6107.	31836.	49.58

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0,7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA JUN,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTB2	AREA2	DSTOR2	RES2
JUN	01	0	123	0	56	71	35	3	383	435	49.39	5839	0	10
JUN	02	0	168	0	58	71	35	3	46	230	49.39	5839	88	273
JUN	03	299	149	0	58	73	35	3	46	679	49.42	5881	-59	255
JUN	04	0	194	0	61	71	35	3	203	464	49.37	5812	-145	140
JUN	05	16	188	0	58	71	35	3	158	521	49.37	5812	58	426
JUN	06	291	142	0	60	73	35	3	248	701	49.39	5839	321	454
JUN	07	566	149	0	63	76	35	3	274	885	49.48	5965	567	583
JUN	08	2878	194	8	75	86	35	3	372	1515	49.58	6105	946	-802
JUN	09	0	175	30	87	105	35	3	151	827	49.79	6398	672	1262
JUN	10	0	155	39	87	108	35	3	0	0	49.79	6398	32	-85
JUN	11	0	194	85	87	105	35	3	72	0	49.80	6412	96	-96
JUN	12	226	200	98	87	103	35	3	123	484	49.82	6440	225	235
JUN	13	194	239	103	89	106	35	3	148	1112	49.87	6510	293	966
JUN	14	8	129	98	93	110	35	3	76	457	49.91	6566	263	426
JUN	15	0	181	94	91	107	35	3	0	496	49.95	6621	265	613
JUN	16	0	213	89	89	104	35	3	0	823	49.99	6677	200	917
JUN	17	8	200	80	87	102	35	3	0	759	50.01	6705	67	711
JUN	18	0	226	75	85	100	35	3	0	863	50.01	6705	0	791
JUN	19	0	194	66	83	98	35	3	0	853	50.01	6705	0	761
JUN	20	97	226	48	83	97	35	3	0	1004	50.01	6705	67	934
JUN	21	226	78	17	87	100	35	3	79	1331	50.03	6733	168	1030
JUN	22	129	110	17	89	98	35	3	30	959	50.06	6774	135	803
JUN	23	380	162	30	91	100	35	3	0	949	50.07	6788	102	574
JUN	24	145	162	71	99	106	35	3	0	1054	50.09	6816	239	995
JUN	25	65	149	57	109	107	35	3	0	1059	50.14	6885	413	1245
JUN	26	0	129	44	117	122	35	3	0	1480	50.21	6982	349	1638
JUN	27	0	175	39	115	130	35	3	0	1198	50.24	7023	70	1120
JUN	28	0	194	35	113	129	35	3	36	1277	50.23	7009	0	1121
JUN	29	994	213	39	115	130	35	3	62	1423	50.24	7023	421	679
JUN	30	2376	188	68	129	150	35	3	215	1622	50.35	7174	753	-414
SUBTOTAL		8900	5199	1330	2604	3006	1038	93	2725	25455			6607	17565

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	19697.	30655.	6505.	33781.	49.87

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA JUL,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
JUL	01	24	116	221	151	172	17	3	238	1807	50.45	7311	512	1608
JUL	02	8	149	331	153	166	17	3	679	1901	50.49	7365	479	1172
JUL	03	275	149	292	157	161	17	3	242	1457	50.58	7487	711	1170
JUL	04	703	149	244	159	160	17	3	420	1575	50.68	7621	991	1009
JUL	05	89	168	238	159	162	17	3	449	2060	50.84	7832	1097	2208
JUL	06	542	194	262	159	158	17	3	0	1795	50.96	7989	999	1847
JUL	07	1875	285	384	167	164	17	3	0	1731	51.09	8156	1631	1037
JUL	08	340	162	386	182	179	17	3	548	2038	51.36	8494	1741	2287
JUL	09	57	78	365	180	190	17	3	1391	2803	51.50	8664	996	1674
JUL	10	0	149	346	179	183	17	3	1708	2985	51.59	8770	614	1312
JUL	11	0	194	323	175	179	17	3	1951	3124	51.64	8829	132	803
JUL	12	0	213	301	171	176	17	3	2148	3237	51.62	8806	-352	283
JUL	13	0	194	283	167	172	17	3	1831	3055	51.56	8735	-611	166
JUL	14	65	213	265	163	166	17	3	1543	2890	51.48	8640	-605	278
JUL	15	420	162	288	163	161	17	3	1220	2705	51.42	8567	-557	38
JUL	16	0	188	338	165	157	17	3	1296	2749	51.35	8482	-636	324
JUL	17	0	155	312	163	153	17	3	1233	2712	51.27	8383	-671	317
JUL	18	0	220	274	159	148	17	3	948	2549	51.19	8283	-414	806
JUL	19	0	213	248	157	147	17	3	299	1652	51.17	8258	165	1161
JUL	20	178	97	231	151	149	17	3	0	1873	51.23	8333	292	1533
JUL	21	8	213	206	149	149	17	3	143	1564	51.24	8346	83	1185
JUL	22	0	129	187	145	148	17	3	110	1518	51.25	8358	84	1121
JUL	23	0	188	165	143	146	17	3	103	1425	51.26	8370	84	1119
JUL	24	0	188	143	139	146	17	3	179	1399	51.27	8383	42	1001
JUL	25	0	226	122	135	145	17	3	228	1349	51.27	8383	42	968
JUL	26	24	246	104	131	145	17	3	168	1283	51.28	8395	168	1105
JUL	27	0	213	93	129	146	17	3	0	1346	51.31	8432	295	1466
JUL	28	137	175	80	127	150	17	3	0	1273	51.35	8482	85	1019
JUL	29	137	233	67	127	150	17	3	0	1328	51.33	8457	-85	976
JUL	30	105	129	66	127	151	17	3	48	1367	51.33	8457	0	980
JUL	31	48	142	76	127	152	17	3	0	1268	51.33	8457	42	1031
SUBTOTAL		5036	5529	7240	4752	4932	530	84	19122	61818			7353	33003

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	41697.	67347.	8307.	44085.	51.22

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA AUG,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
AUG	01	202	136	76	125	152	10	3	620	1836	51.34	8469	169	954
AUG	02	242	168	74	125	152	10	3	1071	2481	51.37	8506	298	1269
AUG	03	73	188	67	123	155	10	3	1075	2486	51.41	8555	257	1424
AUG	04	566	181	62	121	159	10	3	1610	3011	51.43	8579	214	876
AUG	05	404	162	58	119	160	10	3	1615	2942	51.46	8616	129	863
AUG	06	137	149	56	117	162	10	3	1865	2861	51.46	8616	86	745
AUG	07	437	181	58	117	162	10	3	1950	2950	51.48	8640	389	784
AUG	08	154	123	61	119	166	10	3	2366	3433	51.55	8723	262	940
AUG	09	178	181	75	123	168	10	3	2783	3840	51.54	8711	-87	594
AUG	10	40	110	132	123	171	10	3	2811	3635	51.53	8699	0	454
AUG	11	32	149	161	121	169	10	3	2765	3774	51.54	8711	-87	575
AUG	12	0	136	159	121	166	10	3	2563	3693	51.51	8676	-347	460
AUG	13	194	220	157	119	164	10	3	2389	3395	51.46	8616	-215	364
AUG	14	194	149	170	119	165	10	3	2381	3466	51.46	8616	-43	529
AUG	15	16	103	193	117	169	10	3	2552	3461	51.45	8603	172	677
AUG	16	0	155	218	117	171	10	3	2581	3689	51.50	8664	173	917
AUG	17	57	175	245	115	169	10	3	2610	3751	51.49	8652	-173	544
AUG	18	16	220	233	111	166	10	3	2459	3671	51.46	8616	-345	548
AUG	19	340	181	215	111	162	10	3	1753	3648	51.41	8555	-471	764
AUG	20	0	136	206	109	158	10	3	1790	3032	51.35	8482	-551	340
AUG	21	0	155	190	107	153	10	3	1686	2972	51.28	8395	-546	432
AUG	22	291	200	176	105	150	10	3	1632	2941	51.22	8321	-250	525
AUG	23	0	181	160	103	148	10	3	767	2460	51.22	8321	-83	1366
AUG	24	0	194	147	103	145	10	3	1051	2472	51.20	8295	-290	917
AUG	25	32	149	135	99	145	10	3	1115	0	51.15	8232	-206	-1596
AUG	26	0	78	124	97	144	10	3	1648	2951	51.15	8232	-247	754
AUG	27	0	175	112	97	139	10	3	900	2888	51.09	8156	-449	1352
AUG	28	57	149	102	97	135	10	3	1033	2513	51.04	8092	-283	942
AUG	29	48	194	94	97	133	10	3	734	2060	51.02	8067	-40	1095
AUG	30	65	129	86	95	134	10	3	222	1307	51.03	8079	40	863
AUG	31	105	168	83	99	135	10	3	105	1147	51.03	8079	121	897
SUBTOTAL		3880	4973	4090	3473	4826	309	84	52504	88764			-2402	22168

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	69166.	93737.	8470.	45115.	51.34

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE HATCHINIHA SEP,1983

MONTH	DATE	RAIN2	EVAP2	DEAD	CATF	MARI	MACH	SEEP	C-36	C-37	MSTG2	AREA2	DSTOR2	RES2
SEP	01	1035	194	87	115	142	5	3	187	1302	51.06	8118	487	410
SEP	02	113	142	106	129	154	5	3	492	1799	51.15	8232	576	1516
SEP	03	178	84	139	129	155	5	3	376	1806	51.20	8295	415	1321
SEP	04	170	110	138	129	152	5	3	261	1785	51.25	8358	376	1414
SEP	05	0	162	133	129	151	5	3	356	1864	51.29	8408	126	1375
SEP	06	0	162	130	127	150	5	3	0	1158	51.28	8395	126	1032
SEP	07	40	188	128	125	151	5	3	0	1297	51.32	8445	380	1413
SEP	08	0	110	123	123	153	5	3	0	1162	51.37	8506	383	1248
SEP	09	0	136	118	123	155	5	3	0	1303	51.41	8555	342	1377
SEP	10	0	155	114	121	156	5	3	0	1443	51.45	8603	258	1458
SEP	11	121	168	108	119	157	5	3	0	1441	51.47	8628	302	1398
SEP	12	81	194	103	117	159	5	3	0	1584	51.52	8687	261	1571
SEP	13	186	142	102	119	161	5	3	0	1306	51.53	8699	174	1047
SEP	14	40	91	103	121	162	5	3	0	1738	51.56	8735	175	1569
SEP	15	16	45	105	123	164	5	3	0	1249	51.57	8747	87	966
SEP	16	137	116	106	121	163	5	3	394	1427	51.58	8759	44	658
SEP	17	0	78	118	119	162	5	3	270	1404	51.58	8759	0	805
SEP	18	226	39	135	119	163	5	3	270	1419	51.58	8759	88	624
SEP	19	267	97	154	119	168	5	3	951	2207	51.60	8782	307	945
SEP	20	501	129	196	119	169	5	3	1777	3012	51.65	8841	354	725
SEP	21	0	97	261	121	170	5	3	3315	3339	51.68	8875	355	-84
SEP	22	40	129	264	121	171	5	3	3773	3359	51.73	8933	313	-576
SEP	23	0	168	252	117	173	5	3	3451	3368	51.75	8956	90	-375
SEP	24	0	84	232	115	175	5	3	2653	3518	51.75	8956	-179	240
SEP	25	0	194	203	111	171	5	3	2874	3351	51.71	8910	-490	-312
SEP	26	0	181	179	109	165	5	3	2072	2925	51.64	8829	-662	-89
SEP	27	0	142	162	109	160	5	3	270	1852	51.56	8735	-655	631
SEP	28	0	149	150	107	155	5	3	0	1046	51.49	8652	-303	471
SEP	29	0	168	143	103	155	5	3	0	474	51.49	8652	0	233
SUBTOTAL		3152	3854	4291	3459	4643	144	79	23743	54940			3728	23011
TOTAL		45032	50479	70089	39013	68917	4205	1022						

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	39511.	58794.	8470.	45115.	51.34

NOTE: (1)ALL DATA IN AC-FT.
(2)ASSUME HATCH RECEIVES 0.7 REEDY CREEK FLOW.
(3)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE SEP,1982

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
SEP	02	0	625	184	0	3729	11	2239	51.40	37791	-945	975
SEP	03	0	710	183	0	2380	11	2504	51.38	37719	-377	15
SEP	04	142	767	183	0	1551	11	2609	51.38	37719	377	-250
SEP	05	106	710	184	0	1551	11	2525	51.40	37791	567	1
SEP	06	2378	1051	185	0	1551	11	2416	51.41	37828	1702	-686
SEP	07	1491	426	190	0	1551	11	2254	51.49	38125	3622	1652
SEP	08	746	710	197	4	1966	11	2011	51.60	38547	2313	2019
SEP	09	1207	454	198	345	2936	11	1921	51.61	38586	-193	-486
SEP	10	1136	625	197	182	4562	11	2699	51.59	38508	-1155	-194
SEP	11	35	568	194	175	5574	11	2961	51.55	38354	-1342	1423
SEP	12	71	653	192	167	5534	11	3208	51.52	38239	1530	4068
SEP	13	213	483	199	161	4146	11	2413	51.63	38665	1933	3564
SEP	14	213	1051	199	167	4760	11	2465	51.62	38625	-773	1984
SEP	15	71	454	197	149	5534	11	2552	51.59	38508	-1348	1660
SEP	16	0	966	194	131	5534	11	2539	51.55	38354	192	3816
SEP	17	319	625	197	111	3471	11	2499	51.60	38547	2313	3270
SEP	18	0	795	202	105	2222	11	2779	51.67	38823	1165	1084
SEP	19	355	568	201	99	2241	11	3174	51.66	38784	-194	-1226
SEP	20	959	596	201	93	2241	11	3285	51.66	38784	970	-742
SEP	21	3976	625	205	89	2241	11	3177	51.71	38984	2144	-2448
SEP	22	1881	57	209	175	3610	11	3058	51.77	39229	1961	294
SEP	23	0	114	211	452	4463	11	3101	51.81	39395	985	1786
SEP	24	391	398	212	413	4463	11	3242	51.82	39437	789	1381
SEP	25	1491	369	214	452	4463	11	3240	51.85	39563	2769	2193
SEP	26	5467	426	222	494	4463	11	2968	51.96	40036	3203	-1070
SEP	27	0	454	225	538	6407	11	3005	52.01	40256	-403	2680
SEP	28	0	568	220	538	7815	11	3741	51.94	39949	-1198	2675
SEP	29	1065	738	221	768	7815	11	3824	51.95	39992	1800	4464
SEP	30	248	682	226	448	6367	11	3500	52.03	40345	3631	6245
SUBTOTAL		23962	17267	5844	6254	115140	328	81910			26037	40146

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	118299.	132407.	38810.	315130.	51.66

NOTE: (1)ALL DATA IN AC-FT.,
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE OCT,1982

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
OCT	01	4508	596	233	359	5633	10	3247	52.13	40800	4488	2361
OCT	02	106	511	241	430	5574	10	2974	52.25	41364	2482	4805
OCT	03	0	653	241	506	5633	10	2962	52.25	41364	207	2775
OCT	04	0	312	242	579	5633	10	2919	52.26	41412	828	3024
OCT	05	5041	625	244	541	5633	10	2838	52.29	41556	4571	2155
OCT	06	1207	710	256	500	4860	10	3332	52.48	42504	5313	5578
OCT	07	0	795	260	486	5812	10	3423	52.54	42815	642	3070
OCT	08	35	511	258	472	4443	10	3694	52.51	42659	-1066	-582
OCT	09	0	625	257	460	4602	10	3329	52.49	42556	-638	532
OCT	10	0	568	256	448	4463	10	3308	52.48	42504	1488	2496
OCT	11	284	568	262	430	4602	10	2661	52.56	42920	3434	4956
OCT	12	0	710	267	0	4721	10	1569	52.64	43345	1734	5318
OCT	13	0	682	267	0	4661	10	1595	52.64	43345	650	4121
OCT	14	0	540	269	0	4602	10	1387	52.67	43508	-3046	430
OCT	15	0	284	258	0	4463	10	2311	52.50	42607	-11930	-9762
OCT	16	0	738	232	0	4284	10	3184	52.11	40708	-11805	-10208
OCT	17	0	114	219	0	3927	10	3238	51.92	39862	-2790	-2216
OCT	18	0	454	222	0	4046	10	2317	51.97	40080	1403	3354
OCT	19	0	511	224	0	3967	10	2053	51.99	40168	4218	6410
OCT	20	35	625	236	0	0	10	590	52.18	41032	5129	4883
OCT	21	0	483	240	0	0	10	0	52.24	41316	1859	2092
OCT	22	0	540	242	0	0	10	959	52.27	41460	2488	1816
OCT	23	816	540	248	0	0	10	639	52.36	41899	3561	2387
OCT	24	0	170	254	0	0	10	0	52.44	42300	2538	2445
OCT	25	0	227	256	0	0	10	0	52.48	42504	1275	1236
OCT	26	0	398	258	0	0	10	0	52.50	42607	-213	-83
OCT	27	0	398	256	0	0	10	530	52.47	42453	-1910	-2308
OCT	28	0	454	252	0	0	10	1477	52.41	42149	-1897	-3180
OCT	29	0	511	250	0	0	10	1387	52.38	41999	-630	-1765
OCT	30	35	483	250	0	0	10	1298	52.38	41999	630	-480
OCT	31	35	369	252	0	0	10	1211	52.41	42149	632	-506
SUBTOTAL		12105	15705	7698	5213	91558	303	60432			13643	35156

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	85751.	107264.	41934.	343349.	52.36

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE NOV,1982

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
NOV	01	35	142	252	0	0	8	1374	52.41	42149	421	-1106
NOV	02	1704	341	253	0	0	8	1137	52.43	42249	1479	-1282
NOV	03	852	341	256	0	0	8	661	52.48	42504	1700	264
NOV	04	355	199	258	0	0	8	652	52.51	42659	5119	4045
NOV	05	0	227	272	0	0	8	0	52.72	43781	4378	4325
NOV	06	0	426	272	0	0	8	0	52.71	43726	-1968	-1821
NOV	07	0	28	266	0	0	8	0	52.63	43292	-2814	-3060
NOV	08	0	767	263	0	690	8	0	52.58	43025	-1076	111
NOV	09	0	369	263	0	1125	8	0	52.58	43025	-861	363
NOV	10	0	426	260	0	1125	8	385	52.54	42815	-1713	-815
NOV	11	0	454	258	0	1125	8	540	52.50	42607	-1491	-718
NOV	12	0	511	256	0	450	8	696	52.47	42453	849	851
NOV	13	0	426	260	0	0	8	0	52.54	42815	642	800
NOV	14	0	398	258	0	0	8	0	52.50	42607	426	558
NOV	15	106	312	262	0	0	8	0	52.56	42920	644	580
NOV	16	1100	256	260	0	0	8	0	52.53	42763	-428	-1540
NOV	17	35	284	260	0	682	8	0	52.54	42815	0	663
NOV	18	0	426	260	0	1125	8	0	52.53	42763	-428	856
NOV	19	0	398	259	0	1125	8	0	52.52	42711	-854	401
NOV	20	0	426	257	0	1125	8	0	52.49	42556	-638	648
NOV	21	0	369	257	0	1125	8	0	52.49	42556	0	1229
NOV	22	0	454	257	0	1125	8	0	52.49	42556	-851	463
NOV	23	0	398	254	0	1125	8	596	52.45	42351	-1059	-395
NOV	24	0	369	254	0	413	8	673	52.44	42300	-212	-364
NOV	25	0	369	254	0	0	8	752	52.44	42300	423	-221
NOV	26	0	454	255	0	0	8	672	52.46	42402	-424	-904
NOV	27	0	369	252	0	0	8	987	52.42	42199	-1266	-2144
NOV	28	0	596	251	0	0	8	985	52.40	42098	0	-647
NOV	29	0	227	252	0	0	8	807	52.42	42199	422	-418
NOV	30	0	540	252	0	0	8	903	52.42	42199	0	-624
SUBTOTAL		4189	11303	7741	0	12357	235	11820			423	98

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	23985.	23660.	42646.	349411.	52.51

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE DEC,1982

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
DEC	01	35	312	252	0	0	7	986	52.42	42199	0	-968
DEC	02	0	284	252	0	0	7	987	52.42	42199	-633	-1595
DEC	03	0	540	250	0	0	7	1464	52.39	42048	-631	-1813
DEC	04	0	540	250	0	0	7	1380	52.39	42048	-420	-1518
DEC	05	0	596	249	0	0	7	1455	52.37	41949	629	-485
DEC	06	639	426	252	0	0	7	1136	52.42	42199	2743	1134
DEC	07	177	341	258	0	0	7	501	52.50	42607	1704	1101
DEC	08	355	341	258	0	0	7	503	52.50	42607	1491	710
DEC	09	0	341	262	0	0	7	0	52.57	42972	0	72
DEC	10	71	284	258	0	0	7	880	52.50	42607	-2556	-3488
DEC	11	0	227	254	0	0	7	1009	52.45	42351	1906	863
DEC	12	1668	398	264	0	0	7	0	52.59	43078	5600	4059
DEC	13	0	284	398	0	0	7	0	52.71	43726	-1312	-1432
DEC	14	0	341	399	0	224	7	0	52.53	42763	-5559	-5400
DEC	15	0	199	395	0	450	7	980	52.45	42351	-847	-1580
DEC	16	1775	454	395	0	167	7	693	52.49	42556	4894	2645
DEC	17	0	114	395	0	682	7	0	52.68	43562	2178	2572
DEC	18	0	369	390	0	1125	7	0	52.59	43078	-4523	-3427
DEC	19	0	199	386	0	1125	7	0	52.47	42453	-2335	-1404
DEC	20	0	256	382	0	1125	7	0	52.48	42504	-638	353
DEC	21	0	369	377	0	405	7	0	52.44	42300	-846	-456
DEC	22	0	312	376	0	0	7	0	52.44	42300	-423	-494
DEC	23	0	369	375	0	0	7	0	52.42	42199	-844	-856
DEC	24	0	256	374	0	0	7	0	52.40	42098	-421	-546
DEC	25	0	426	374	0	0	7	0	52.40	42098	421	466
DEC	26	0	426	373	0	0	7	2394	52.42	42199	211	-2137
DEC	27	0	454	372	0	0	7	3496	52.41	42149	-211	-3630
DEC	28	0	256	369	0	0	7	3495	52.41	42149	0	-3616
DEC	29	0	398	370	0	0	7	3308	52.41	42149	0	-3287
DEC	30	0	256	370	0	0	7	3000	52.41	42149	0	-3121
DEC	31	0	284	370	0	0	7	2663	52.41	42149	0	-2757
SUBTOTAL		4721	10650	10298	0	5302	217	30330			-421	-30036

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	45566.	15952.	42445.	347745.	52.47

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE JAN,1983

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
JAN	01	142	170	370	0	0	7	2601	52.41	42149	632	-2319
JAN	02	35	227	367	0	0	7	3405	52.44	42300	1904	-1684
JAN	03	0	256	365	0	0	7	3257	52.50	42607	2130	-1244
JAN	04	35	227	362	0	0	7	3013	52.54	42815	428	-2764
JAN	05	142	284	360	0	0	7	3042	52.52	42711	-641	-3907
JAN	06	35	57	357	0	0	7	2855	52.51	42659	-853	-4052
JAN	07	0	284	357	0	0	7	2667	52.48	42504	-850	-3598
JAN	08	1597	114	355	0	0	7	2394	52.47	42453	-637	-4876
JAN	09	0	341	354	0	0	7	2093	52.45	42351	212	-1902
JAN	10	781	256	355	0	0	7	1276	52.48	42504	1488	-676
JAN	11	35	170	356	0	0	7	558	52.52	42711	2136	1349
JAN	12	0	284	353	0	0	7	0	52.58	43025	645	569
JAN	13	0	426	350	0	0	7	0	52.55	42867	-1929	-1860
JAN	14	0	284	348	0	0	7	0	52.49	42556	-1489	-1561
JAN	15	0	227	347	0	0	7	0	52.48	42504	638	511
JAN	16	0	483	342	0	0	7	******	52.52	42711	-427	*******
JAN	17	0	284	340	0	0	7	******	52.46	42402	-1272	*******
JAN	18	0	369	337	0	0	7	******	52.46	42402	-636	*******
JAN	19	177	540	337	0	0	7	******	52.43	42249	-845	*******
JAN	20	7988	142	354	0	1313	7	******	52.42	42199	2532	*******
JAN	21	1455	28	367	0	2241	7	******	52.55	42867	3001	*******
JAN	22	35	170	371	0	2241	7	******	52.56	42920	644	*******
JAN	23	710	227	372	0	2241	7	******	52.58	43025	215	*******
JAN	24	35	142	374	0	2936	7	******	52.57	42972	-1074	*******
JAN	25	0	227	374	0	3372	7	******	52.53	42763	-2566	*******
JAN	26	0	227	373	0	2678	7	******	52.45	42351	-3176	*******
JAN	27	284	341	372	0	2241	7	******	52.38	41999	-420	*******
JAN	28	0	199	372	0	2241	7	******	52.43	42249	-422	*******
JAN	29	0	284	367	0	2241	7	******	52.36	41899	-2304	*******
JAN	30	0	227	363	0	2241	7	******	52.32	41702	-1043	*******
JAN	31	0	312	360	0	1559	7	******	52.31	41654	-2499	*******
SUBTOTAL		13490	7810	11129	0	27547	232	******			-6481	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	**********	35357.	42486.	348096.	52.48

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(3)*******MISSING RECORD

WATER BUDGET OF LAKE KISSIMMEE FEB,1983

MONTH	DATE	RAIN3	EVAP3	TIBE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
FEB	01	0	341	354	0	1117	11	******	52.20	41126	-1645	*******
FEB	02	4366	824	361	0	1125	11	******	52.23	41268	4333	*******
FEB	03	0	767	370	0	1859	11	******	52.41	42149	3161	*******
FEB	04	0	710	372	0	3213	11	******	52.38	41999	-2730	*******
FEB	05	0	341	371	0	3372	11	******	52.28	41508	-3113	*******
FEB	06	4721	454	376	0	3372	11	******	52.23	41268	1857	*******
FEB	07	355	511	392	0	4046	11	******	52.37	41949	839	*******
FEB	08	0	540	392	0	5891	11	******	52.27	41460	-6012	*******
FEB	09	0	369	388	0	6704	11	******	52.08	40571	-6694	*******
FEB	10	1100	341	387	0	6704	11	******	51.94	39949	-3196	*******
FEB	11	0	454	387	0	7299	11	******	51.92	39862	-1794	*******
FEB	12	3621	540	391	0	7815	11	******	51.85	39563	198	*******
FEB	13	5538	540	437	0	7755	11	******	51.93	39905	4390	*******
FEB	14	0	511	455	0	7815	11	******	52.07	40525	1621	*******
FEB	15	0	511	460	0	7815	11	******	52.01	40256	1610	*******
FEB	16	4615	398	479	0	4483	11	******	52.15	40892	11450	*******
FEB	17	106	85	540	0	1678	11	******	52.57	42972	11817	*******
FEB	18	0	454	566	0	4879	11	******	52.70	43671	1965	*******
FEB	19	0	483	592	0	6942	11	******	52.66	43453	-869	*******
FEB	20	0	312	617	0	7418	11	******	52.66	43453	217	*******
FEB	21	0	540	635	0	7418	11	******	52.67	43508	-2393	*******
FEB	22	319	284	648	0	9005	11	******	52.55	42867	-3644	*******
FEB	23	35	227	654	0	10116	11	******	52.50	42607	-1704	*******
FEB	24	0	625	648	0	10116	11	******	52.47	42453	-2759	*******
FEB	25	0	568	642	0	10056	11	******	52.37	41949	-629	*******
FEB	26	248	653	636	0	7160	11	******	52.44	42300	6980	*******
FEB	27	7526	398	655	0	0	11	******	52.70	43671	-7642	*******
FEB	28	852	57	704	0	3987	11	******	52.09	40616	5077	*******
SUBTOTAL		33405	12837	13910	0	159162	319	******			10691	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	**********	171999.	41706.	341307.	52.31

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(3)*******MISSING RECORD

WATER BUDGET OF LAKE KISSIMMEE MAR,1983

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
MAR	01	426	199	723	139	7478	15	******	52.95	45092	17135	*******
MAR	02	0	227	729	125	7934	15	******	52.85	44511	-4674	*******
MAR	03	0	398	733	111	8608	15	******	52.74	43892	-6584	*******
MAR	04	0	426	723	97	9005	15	******	52.55	42867	-8145	*******
MAR	05	0	568	702	91	9005	15	******	52.36	41899	-6075	*******
MAR	06	0	426	683	85	8926	15	******	52.26	41412	-2899	*******
MAR	07	1278	312	671	81	8926	15	******	52.22	41221	-4122	*******
MAR	08	532	398	660	93	9521	15	******	52.06	40480	-3441	*******
MAR	09	0	256	643	93	10056	15	******	52.05	40435	-2830	*******
MAR	10	71	568	619	81	10056	15	******	51.92	39862	-1993	*******
MAR	11	0	596	594	69	9977	15	******	51.95	39992	-3399	*******
MAR	12	0	398	565	60	9977	15	******	51.75	39147	-8221	*******
MAR	13	0	341	540	50	9977	15	******	51.53	38277	-6890	*******
MAR	14	0	284	517	40	9977	15	******	51.39	37755	-4719	*******
MAR	15	2130	312	507	40	9898	15	******	51.28	37361	-2428	*******
MAR	16	604	0	500	60	7656	15	3919	51.26	37291	2051	4610
MAR	17	674	682	486	60	2222	15	4668	51.39	37755	1133	-1867
MAR	18	213	426	477	69	6724	15	4564	51.32	37503	-6188	-4376
MAR	19	0	312	462	69	10473	15	4533	51.06	36615	-8788	-3081
MAR	20	0	454	444	67	10473	15	4689	50.84	35921	-3592	2120
MAR	21	1455	398	444	65	10394	15	5521	50.86	35982	1259	4548
MAR	22	0	738	425	65	9045	15	4642	50.91	36137	2891	7526
MAR	23	994	483	405	40	6605	15	3881	51.02	36485	4196	5948
MAR	24	3586	369	415	44	6605	15	3218	51.14	36880	2766	2463
MAR	25	0	625	416	60	6605	15	2992	51.17	36981	-2404	1343
MAR	26	0	426	403	65	6605	15	4640	51.01	36453	-2734	-827
MAR	27	4970	625	406	73	6546	15	4706	51.02	36485	4743	1743
MAR	28	35	57	443	81	6605	15	3863	51.27	37326	5599	7823
MAR	29	0	710	444	87	6645	15	3596	51.32	37503	188	3399
MAR	30	284	483	439	87	6645	15	4145	51.28	37361	187	2344
MAR	31	781	454	441	87	7319	15	3892	51.33	37538	-938	1619
SUBTOTAL		18034	12950	16659	2337	256486	473	******			-48918	*******

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	**********	269437.	38852.	314053.	51.61

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.
(3)*******MISSING RECORD

WATER BUDGET OF LAKE KISSIMMEE APR,1983

MONTH	DATE	RAIN3	EVAP3	TIBE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
APR	01	0	710	435	81	7755	13	4514	51.23	37187	-3719	-296
APR	02	248	653	425	77	7696	13	4831	51.13	36847	-553	2202
APR	03	0	142	422	73	7696	13	4303	51.20	37084	-1854	1172
APR	04	0	824	412	69	8946	13	5127	51.03	36517	-6938	-2790
APR	05	0	738	401	65	9818	13	5817	50.82	35861	-2869	1392
APR	06	0	710	392	60	8450	13	5252	50.87	36013	1260	4704
APR	07	1100	767	386	67	7636	13	4866	50.89	36075	180	2152
APR	08	142	625	390	75	7636	13	4918	50.88	36044	-360	2364
APR	09	2698	454	394	89	7636	13	4854	50.87	36013	3421	3465
APR	10	1775	426	427	103	7636	13	4170	51.07	36648	3665	5239
APR	11	0	824	437	119	8351	13	3905	51.07	36648	-3665	1035
APR	12	0	738	438	111	8727	13	4912	50.87	36013	-5042	-1050
APR	13	0	738	429	111	8727	13	5255	50.79	35771	-3577	81
APR	14	0	880	416	87	8668	13	4728	50.67	35419	-2656	1647
APR	15	852	710	404	79	8470	13	5531	50.64	35333	1943	4244
APR	16	0	653	396	71	8668	13	4329	50.78	35741	2681	7192
APR	17	0	937	379	63	2440	13	3771	50.79	35771	4292	3443
APR	18	213	795	355	56	0	13	2038	51.02	36485	7662	5783
APR	19	781	880	349	48	0	13	3157	51.21	37118	557	-2910
APR	20	0	682	339	40	5673	13	3621	51.05	36582	-9329	-6986
APR	21	0	568	331	20	9957	13	4327	50.70	35506	-11362	-5527
APR	22	0	653	321	0	10671	13	4536	50.41	34704	-9717	-3262
APR	23	994	653	306	4	10572	13	4753	50.14	34024	-2041	3114
APR	24	0	369	306	8	10572	13	4775	50.29	34394	3955	9795
APR	25	0	1136	289	12	8093	13	3633	50.37	34599	2076	7358
APR	26	0	1022	270	6	6446	13	3001	50.41	34704	-868	3312
APR	27	0	682	256	4	6446	13	3232	50.32	34471	-2930	693
APR	28	0	1022	242	0	6605	13	3262	50.24	34269	-2913	1198
APR	29	0	795	228	0	6605	13	3224	50.15	34048	-4086	-150
APR	30	0	937	216	0	6605	13	3039	50.00	33695	-2864	1411
SUBTOTAL		8804	21726	10790	1601	223203	381	127678			-45649	50026

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	149254.	244929.	35653.	280694.	50.73

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE MAY,1983

	MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
	MAY	01	0	710	204	0	6347	13	3176	49.98	33649	-1851	1814
	MAY	02	0	738	191	0	6308	13	3174	49.89	33446	-3010	658
	MAY	03	0	824	180	0	6248	13	3309	49.80	33249	-1662	1908
	MAY	04	213	738	171	0	6248	13	2823	49.79	33227	-665	3102
	MAY	05	0	341	161	0	6248	13	2619	49.76	33163	-2487	1310
	MAY	06	0	710	150	0	6248	13	2739	49.64	32912	-4608	-551
	MAY	07	0	966	140	0	6149	13	2870	49.48	32591	-3911	181
	MAY	08	0	1051	130	0	6089	13	3185	49.40	32436	-324	3488
	MAY	09	0	767	122	0	3610	13	1961	49.46	32552	1953	4235
	MAY	10	0	852	113	0	2083	13	1118	49.52	32670	327	2018
	MAY	11	0	1051	106	0	2023	13	1088	49.48	32591	-1141	727
	MAY	12	0	852	99	0	2023	13	1100	49.45	32533	-1139	526
	MAY	13	0	795	91	0	2043	13	1130	49.41	32455	-1460	143
	MAY	14	0	1051	85	0	2023	13	1246	49.36	32360	-1780	-49
	MAY	15	0	994	79	0	2023	13	1545	49.30	32248	-645	736
	MAY	16	0	795	75	0	2023	13	1216	49.32	32285	323	1839
	MAY	17	0	767	70	0	2023	13	980	49.32	32285	-969	759
	MAY	18	0	795	65	0	2003	13	1216	49.26	32174	-2091	-587
	MAY	19	0	880	61	0	2003	13	2071	49.19	32046	-1282	-542
	MAY	20	0	767	57	0	2003	13	2152	49.18	32028	-320	228
	MAY	21	0	909	54	0	2003	13	2143	49.17	32010	160	863
	MAY	22	0	1051	50	0	2003	13	1956	49.19	32046	1122	2156
	MAY	23	0	880	48	0	726	13	1598	49.24	32137	2089	2036
	MAY	24	0	511	46	0	0	13	431	49.32	32285	1453	1475
	MAY	25	0	483	46	0	1287	13	432	49.33	32304	-323	957
	MAY	26	0	966	42	0	2598	13	0	49.30	32248	-1612	1897
	MAY	27	0	1079	39	0	1799	13	857	49.23	32119	-1606	364
	MAY	28	213	909	37	0	1000	13	1105	49.20	32064	-481	60
	MAY	29	0	909	37	0	992	13	1259	49.20	32064	641	1234
	MAY	30	4792	767	39	0	984	13	1069	49.24	32137	2410	-1751
	MAY	31	355	653	43	0	1008	13	926	49.35	32341	2264	2588
SUBTOTAL			5573	25560	2828	0	90170	389	52490			-20625	33824

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	61281.	115730.	32473.	235742.	49.41

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE JUN,1983

MONTH	DATE	RAIN3	EVAP3	TIBE	ZIPR	S-65	SEEP	C-37	MST63	AREA3	DSTOR3	RES3
JUN	01	0	540	42	0	327	13	435	49.38	32398	486	864
JUN	02	0	738	40	0	0	13	230	49.38	32398	-972	-516
JUN	03	1917	653	38	0	0	13	679	49.32	32285	-646	-2639
JUN	04	0	852	37	0	0	13	464	49.34	32322	0	338
JUN	05	71	824	37	0	0	13	521	49.32	32285	-323	-141
JUN	06	1562	625	36	0	0	13	701	49.32	32285	969	-718
JUN	07	1739	653	40	0	0	13	885	49.38	32398	972	-1052
JUN	08	12354	852	48	0	0	13	1515	49.38	32398	5184	-7894
JUN	09	0	767	61	0	0	13	827	49.70	33036	7433	7299
JUN	10	0	682	62	0	0	13	0	49.83	33314	1666	2272
JUN	11	0	852	62	0	0	13	0	49.80	33249	-499	278
JUN	12	213	880	62	0	0	13	484	49.80	33249	-997	-889
JUN	13	71	1051	66	0	0	13	1112	49.74	33120	1490	1279
JUN	14	213	568	74	0	0	13	457	49.89	33446	2843	2654
JUN	15	106	795	75	0	0	13	496	49.91	33490	0	105
JUN	16	0	937	74	0	0	13	823	49.89	33446	167	195
JUN	17	35	880	73	0	0	13	759	49.92	33513	168	168
JUN	18	0	994	72	0	0	13	863	49.90	33468	-335	-288
JUN	19	0	852	70	0	0	13	853	49.90	33468	-502	-586
JUN	20	2059	994	69	0	0	13	1004	49.87	33402	-1002	-3153
JUN	21	2094	341	72	0	0	13	1331	49.84	33336	1000	-2169
JUN	22	2130	483	75	0	0	13	959	49.93	33535	1677	-1017
JUN	23	1278	710	76	0	0	13	949	49.94	33558	336	-1270
JUN	24	1207	710	80	0	60	13	1054	49.95	33580	1007	-576
JUN	25	1384	653	87	0	0	13	1059	50.00	33695	842	-1048
JUN	26	1917	568	100	0	0	13	1480	50.00	33695	1348	-1594
JUN	27	71	767	104	0	0	13	1198	50.08	33881	1016	398
JUN	28	0	852	104	0	0	13	1277	50.06	33834	-508	-1050
JUN	29	6390	937	111	0	0	13	1423	50.05	33811	1691	-5309
JUN	30	5857	824	184	0	0	13	1622	50.16	34072	3578	-3275
SUBTOTAL		42671	22834	2130	0	387	387	25455			28089	-19334

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	70643.	23220.	33199.	247432.	49.77

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE JUL,1983

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
JUL	01	0	511	197	0	0	10	1807	50.26	34319	3432	1930
JUL	02	2236	653	205	46	0	10	1901	50.36	34574	3457	-288
JUL	03	2130	653	218	91	0	10	1457	50.46	34837	3484	230
JUL	04	2449	653	226	137	0	10	1575	50.56	35109	3335	-409
JUL	05	532	738	258	182	0	10	2060	50.65	35362	3536	1233
JUL	06	1633	852	271	167	0	10	1795	50.76	35681	4817	1794
JUL	07	7100	1250	319	69	0	10	1731	50.92	36168	8319	340
JUL	08	142	710	384	200	2194	10	2038	51.22	37152	5759	5888
JUL	09	355	341	413	331	2216	10	2803	51.23	37187	372	-983
JUL	10	0	653	432	462	2237	10	2985	51.24	37221	372	-626
JUL	11	0	852	443	593	7416	10	3124	51.25	37256	186	4285
JUL	12	0	937	451	506	7484	10	3237	51.25	37256	-745	3473
JUL	13	0	852	454	500	7438	10	3055	51.21	37118	-2413	1859
JUL	14	35	937	452	494	7400	10	2890	51.12	36813	-1104	3352
JUL	15	1491	710	442	484	7369	10	2705	51.15	36914	-923	2024
JUL	16	0	824	432	363	7299	10	2749	51.07	36648	-2932	1637
JUL	17	0	682	420	242	7222	10	2712	50.99	36389	-3093	1426
JUL	18	0	966	405	121	2176	10	2549	50.90	36106	722	779
JUL	19	0	937	387	0	0	10	1652	51.03	36517	2191	1080
JUL	20	1278	426	372	113	0	10	1873	51.02	36485	1095	-2125
JUL	21	106	937	358	224	0	10	1564	51.09	36714	1469	144
JUL	22	0	568	344	335	0	10	1518	51.10	36747	551	-1087
JUL	23	0	824	332	284	0	10	1425	51.12	36813	736	-490
JUL	24	0	824	319	234	0	10	1399	51.14	36880	553	-585
JUL	25	0	994	307	182	0	10	1349	51.15	36914	369	-485
JUL	26	177	1079	294	131	0	10	1283	51.16	36947	185	-631
JUL	27	1029	937	284	105	0	10	1346	51.16	36947	924	-913
JUL	28	674	767	278	290	1109	10	1273	51.21	37118	371	-278
JUL	29	1313	1022	273	528	1139	10	1328	51.18	37015	-555	-1846
JUL	30	1597	568	269	349	1135	10	1367	51.18	37015	185	-1705
JUL	31	142	625	268	198	1129	10	1268	51.19	37049	185	53
SUBTOTAL		24424	24282	10507	7962	64962	297	61818			34840	19076

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	105008.	89244.	36493.	290738.	51.01

NOTE: (1)ALL DATA IN AC-FT.,
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE AUG,1983

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
AUG	01	1065	596	265	0	1123	10	1836	51.19	37049	-185	-1643
AUG	02	213	738	264	0	1113	10	2481	51.18	37015	555	-561
AUG	03	71	824	260	0	2265	10	2486	51.22	37152	743	1005
AUG	04	959	795	257	0	3453	10	3011	51.22	37152	743	756
AUG	05	604	710	255	0	3596	10	2942	51.26	37291	932	1428
AUG	06	1100	653	253	0	3568	10	2861	51.27	37326	373	371
AUG	07	1207	795	261	0	3539	10	2950	51.28	37361	374	280
AUG	08	1136	540	283	0	6121	10	3433	51.29	37396	-1122	677
AUG	09	674	795	291	0	6268	10	3840	51.22	37152	-929	1319
AUG	10	604	483	291	0	6048	10	3635	51.24	37221	186	2178
AUG	11	497	653	287	0	6054	10	3774	51.23	37187	-558	1581
AUG	12	248	596	286	0	6066	10	3693	51.21	37118	-557	1867
AUG	13	959	966	283	0	6109	10	3395	51.20	37084	-371	2058
AUG	14	142	653	279	0	6153	10	3466	51.19	37049	-370	2539
AUG	15	177	454	274	0	6202	10	3461	51.18	37015	185	2920
AUG	16	852	682	268	0	5990	10	3689	51.20	37084	0	1853
AUG	17	106	767	264	0	6002	10	3751	51.18	37015	-740	1897
AUG	18	0	966	260	0	6077	10	3671	51.16	36947	-1293	1810
AUG	19	213	795	255	0	6109	10	3648	51.11	36780	-2207	572
AUG	20	35	596	249	0	6028	10	3032	51.04	36550	-2558	740
AUG	21	0	682	242	0	5947	10	2972	50.97	36325	-2361	1043
AUG	22	994	880	236	0	3370	10	2941	50.91	36137	542	611
AUG	23	355	795	235	0	3378	10	2460	51.00	36421	1821	2935
AUG	24	355	852	229	0	3328	10	2472	51.01	36453	3828	4942
AUG	25	426	653	224	0	6054	10	0	51.21	37118	-3897	2150
AUG	26	106	341	219	0	3408	10	2951	50.80	35801	-7160	-6698
AUG	27	0	767	213	0	3426	10	2888	50.81	35831	537	1620
AUG	28	177	653	205	0	2245	10	2513	50.83	35891	538	532
AUG	29	35	852	197	0	0	10	2060	50.84	35921	1257	-193
AUG	30	319	568	191	0	0	10	1307	50.90	36106	1264	5
AUG	31	71	738	188	0	0	10	1147	50.91	36137	542	-135
SUBTOTAL		13703	21840	7767	0	129039	299	88764			-9888	30457

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	110533.	150878.	36777.	294129.	51.11

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.

WATER BUDGET OF LAKE KISSIMMEE SEP,1983

MONTH	DATE	RAIN3	EVAP3	TIGE	ZIPR	S-65	SEEP	C-37	MSTG3	AREA3	DSTOR3	RES3
SEP	01	3798	852	196	0	0	11	1302	50.93	36199	1448	-3008
SEP	02	852	625	206	0	0	11	1799	50.99	36389	1819	-424
SEP	03	426	369	207	0	0	11	1806	51.03	36517	1461	-621
SEP	04	0	483	213	0	0	11	1785	51.07	36648	1466	-61
SEP	05	284	710	214	0	0	11	1864	51.11	36780	1655	-8
SEP	06	0	710	215	0	0	11	1158	51.16	36947	1293	619
SEP	07	426	824	217	0	0	11	1297	51.18	37015	1666	538
SEP	08	0	483	221	0	0	11	1162	51.25	37256	1677	765
SEP	09	0	596	224	0	0	11	1303	51.27	37326	747	-195
SEP	10	0	682	227	0	0	11	1443	51.29	37396	748	-252
SEP	11	35	738	231	0	0	11	1441	51.31	37467	937	-44
SEP	12	35	852	238	0	0	11	1584	51.34	37574	1503	486
SEP	13	710	625	241	0	1148	11	1306	51.39	37755	378	-117
SEP	14	426	398	245	0	1127	11	1738	51.36	37646	941	45
SEP	15	2166	199	264	0	1109	11	1249	51.44	37939	2087	-296
SEP	16	391	511	341	0	2341	11	1427	51.47	38050	381	1063
SEP	17	0	341	338	0	2331	11	1404	51.46	38013	-190	728
SEP	18	2166	170	326	0	2321	11	1419	51.46	38013	-190	-1621
SEP	19	3195	426	327	0	3546	11	2207	51.45	37976	-190	-1957
SEP	20	2023	568	336	0	3523	11	3012	51.45	37976	-190	-1481
SEP	21	0	426	358	0	3525	11	3339	51.44	37939	759	1001
SEP	22	106	568	361	20	4862	11	3359	51.49	38125	1334	2906
SEP	23	35	738	356	20	6171	11	3368	51.51	38201	0	3119
SEP	24	0	369	350	14	6147	11	3518	51.49	38125	-763	1861
SEP	25	0	852	344	10	6121	11	3351	51.47	38050	-761	2496
SEP	26	0	795	335	6	6097	11	2925	51.45	37976	-1709	1906
SEP	27	0	625	327	0	3525	11	1852	51.38	37719	-1132	829
SEP	28	0	653	315	0	0	11	1046	51.39	37755	1699	980
SEP	29	0	738	306	0	0	11	474	51.47	38050	381	327
SUBTOTAL		17075	16926	8080	69	53892	322	54940			19253	9585

SUMMARY:	INFLOW	EXFLOW	AREA	VOLUME	STAGE
	80486.	70818.	36777.	294129.	51.11

NOTE: (1)ALL DATA IN AC-FT.
(2)RESIDUE TERM INCLUDES ALL UNMEASURED INFLOWS.