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TASK 42

RESERVOIR OPERATION STUDIES

FOR

VARIOUS DOWNSTREAM FLOW REQUIREMENTS

Prepared by

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for the

Alaska Power Authority

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Introduction

The purpose of the present study was to assess the effects of various downstream flow requirements on the Susitna project power and energy production and to provide post-project flows as input to the Instream Hydraulic studies. The Watana 2185 development was evaluated for six monthly downstream flow scenarios. The combined Watana 2185 and Devil Canyon project was evaluated for nine monthly and four weekly downstream flow scenarios. This report documents the data, methodology, alternatives studied, and the results of the studies.

Simulation Model

The Harza-Ebasco monthly reservoir operation simulation program was used to perform the studies. A flow chart of the program is shown on Exhibit 1. The model is based on the two-reservoir model developed by Acres American, Inc. during the 1981 Susitna Feasibility Study. Modifications to incorporate variable tailwater elevations and turbine efficiencies have been made.

The reservoir operation is driven by one or more of the following constraints:

1) Minimum monthly energy production;

2) Minimum monthly downstream flow requirement; and

3) Monthly target reservoir elevation (rule curve).

As downstream flow requirements increase, the other two constraints must be relaxed somewhat to optimize the reservoir

operation. In doing so, the specified minimum energy production is decreased, while the target rule curve elevations during the drawdown sequence (October through May) are increased.

The post-project flows at Gold Creek were calculated by summing the turbine discharge, spill, and environmental discharge from the downstream reservoir and the intervening flow between the reservoir and Gold Creek. The intervening flow was calculated as the difference between the pre-project flows at the two locations.

Alternatives Studied

To date, studies have been made for two Susitna development scenarios. These are:

1) Watana El. 2185 alone, with a 4-unit powerplant and a system energy demand of 4,916 GWh/year.

2) Watana El. 2185 and Devil Canyon, both with 4-unit powerplants and a system energy demand of 5,945 GWh/year.

The 4,916 GWh/year demand level corresponds to the projected year 2002 demand under the DOR Mean forecast. This corresponds to the last year of Watana alone operation. The 5,945 GWh/year demand level corresponds to the DOR Mean forecast for the year 2010.

Monthly Simulation

Table 1 presents the six monthly downstream flow scenarios investigated for the single reservoir operation and the rule curve which was used. This curve was used for all cases except

2 and 5, where the curve was set equal to the normal maximum reservoir elevation, 2185, for all months. The rule curve for the Devil Canyon was always set to the normal maximum reservoir elevation 1,455.

For the operation of the two-reservoir system, nine different monthly downstream flow cases were investigated. The monthly flow requirements for each case are presented in Table 2. The rule curve which was used in the analysis was the same as that presented in Table 1.

The results obtained from the operation of the single reservoir are presented in Tables 3 through 10 where Tables 3 through 8 give the monthly post-project flows at Gold Creek. For all cases except for two months in Case 5 (Table 8), the downstream flow requirements are satisfied. The average monthly and annual energy production for each case are presented in Table 9 while the monthly energy corresponding to the minimum annual energy production is presented in Table 10.

The effect of the various downstream flow requirements on the average and minimum-year energy production from Watana alone is shown on Exhibit 2. There is clearly a significant impact on the project energy production for the Case 2 and 5 flow requirements.

The monthly post-project flows at Gold Creek for the operation of the double reservoir are presented for each of the nine cases in Tables 11 through 19. The average monthly and annual energy production for each case are presented in Table 20 and

the monthly energy corresponding to the minimum annual energy production are presented in Table 21.

The results for the combined project operation are shown on Exhibit 3. There is a significant reduction in the minimum energy production for Cases 7, 8, and 9.

Weekly Simulation

The reservoir operation program was modified to accomodate weekly flow operation. This version uses weekly inflows, rule curve, and system energy demands, to optimize the energy generation from the two-reservoir system. Four downstream flow cases, as shown in Table 22, were analyzed. The annual energy demand of 5,945 GWh and the same rule curve as that used in the monthly study (modified for weekly operation) were employed.

Tables 23 through 26 present the weekly post-project flows at Gold Creek for the four weekly downstream flow scenarios. The average weekly and annual energy production is presented in Table 27 while the weekly energy corresponding to the minimum annual energy production is given in Table 28.

Since the weekly minimum downstream flow requirements are less demanding than the monthly cases, there is no significant impact on project energy production as shown on Exhibit 4.

Table 1

RULE CURVE AND MONTHLY DOWNSTREAM FLOW REQUIREMENTS FOR WATANA 2185 RESERVOIR CASES 1-5 AND BASE CASE

Month	Rule Curve Elev.	Flow (cfs) Base Case	Case 1	Case 2	Case 3	Case 4	Case 5
Oct	2180	5000	5000	5000	5000	5000	5000
Nov	2170	5000	5000	5000	5000	5000	5000
Dec	2158	5000	5000	5000	5000	5000	5000
Jan	2147	5000	5000	5000	5000	5000	5000
Feb	2138	5000	5000	5000	5000	5000	5000
Mar	2129	5000	5000	5000	5000	5000	5000
Apr	2120	5000	5000	5000	5000	5000	5000
May	2120	6000	6000	6000	6000	6000	6000
Jun	2140	6000	14,000	14,000	10,000	12,000	14,000
Jul	2160	6480	14,000	14,000	10,000	12,000	14,000
Aug	2175	12,000	14,000	16,000	10,000	12,000	18,000
Sep	2185	9300	14,000	16,000	10,000	12,000	18,000

Base Case refers to the downstream flow requirements used in the July 1983 revised License Application (Case C)

Table 2

MONTHLY DOWNSTREAM FLOW REQUIREMENTS AT GOLD CREEK FOR
WATANA 2185 AND DEVIL CANYON RESERVOIRS, CASES 1-9

	Flow (cfs)								
Month	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Oct	5000	5000	5000	5000	5000	5000	5000	5000	5000
Nov	5000	5000	5000	5000	5000	5000	5000	5000	5000
Dec	5000	5000	5000	5000	5000	5000	5000	5000	5000
Jan	5000	5000	5000	5000	5000	5000	5000	5000	5000
Feb	5000	5000	5000	5000	5000	5000	5000	5000	5000
Mar	5000	5000	5000	5000	5000	5000	5000	5000	5000
Apr	5000	5000	5000	5000	5000	5000	5000	5000	5000
May	6000	6000	6000	6000	6000	10,000	10,000	6000	6000
Jun	6000	6000	6000	6000	6000	10,000	10,000	14,000	12,000
Jul	6000	6000	6000	6000	6000	10,000	10,000	14,000	12,000
Aug	12,000	14,000	16,000	18,000	20,000	12,000	20,000	14,000	12,000
Sep	8000	8000	8000	8000	8000	10,000	10,000	14,000	12,000

Note: All runs with Demand = 5945

All runs with Rule Curve #18

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	9307.2	9035.0	10491.5	8907.4	8008.5	6478.9	5000.0	6189.4	7950.4	11634.9	12000.0	9300.0
1951	6646.7	8886.1	10643.8	9112.4	8267.6	6662.5	5054.3	6000.0	6000.0	8074.1	12000.0	13809.5
1952	8543.2	9109.3	10614.8	9005.8	7995.9	6441.9	5000.0	6000.0	15768.7	12770.0	12217.8	11095.9
1953	11174.2	9639.5	10632.3	8967.2	8059.6	6461.0	5000.0	13965.7	14909.1	11203.8	12000.0	9300.0
1954	8102.8	9040.4	10548.1	8914.4	8062.9	6464.4	5000.0	11089.1	14860.8	9407.3	14358.6	9696.6
1955	8342.2	9245.3	10712.8	9087.0	8182.3	6504.4	5000.0	6000.0	14024.7	12167.3	19369.2	14290.0
1956	7923.2	8852.5	10495.0	8872.5	8092.9	6578.3	5000.0	10748.5	15149.8	13568.6	23787.3	18330.0
1957	8778.2	9307.3	10646.0	8999.8	8133.0	6544.1	5000.0	9773.5	13889.8	11759.6	12000.0	19767.1
1958	11184.2	10096.5	11206.2	9140.2	8068.2	6438.5	5000.0	9981.2	12651.2	11591.3	12336.4	9300.0
1959	7178.6	9012.6	10696.4	9147.0	8300.5	6670.3	5000.0	9204.5	10551.3	13018.1	17335.9	16920.0
1960	9530.2	9170.9	10740.8	9119.6	8137.5	6517.4	5000.0	11803.5	6000.0	11195.8	12957.0	16141.3
1961	10766.2	9205.9	10927.8	9332.4	8250.6	6736.0	5193.7	13465.0	15634.9	13128.9	13457.9	13370.0
1962	8888.2	8971.5	10550.7	8959.4	8057.0	6492.3	5000.0	9697.9	16128.9	16248.0	23550.0	15890.0
1963	9695.2	8942.5	10499.5	8962.1	8135.7	6394.6	5000.0	13541.7	14373.3	14016.2	20592.2	12320.0
1964	9421.2	8999.7	10526.8	8896.8	8051.0	6462.2	5000.0	6000.0	16761.8	11332.2	16440.0	9571.0
1965	9263.2	8964.5	10357.3	8787.8	7941.8	6404.7	5000.0	7520.9	13569.8	13052.7	12328.8	18801.5
1966	10177.2	9073.7	10659.7	9043.0	8179.9	6631.2	5000.0	6000.0	16049.9	12159.0	13116.6	9300.0
1967	6916.0	8980.6	10669.3	9169.3	8302.1	6683.5	5000.0	6909.0	13809.6	13202.9	25543.5	16870.0
1968	7872.2	8956.4	10569.7	9039.6	8159.6	6607.8	5000.0	13140.8	14828.6	12696.0	12000.0	9300.0
1969	6825.6	8883.8	10496.3	8916.3	8056.0	6482.9	5000.0	6000.0	6873.4	7127.9	12000.0	9300.0
1970	6853.4	8948.6	10713.6	9257.4	8394.9	6794.8	5000.0	6000.0	7268.0	6860.4	12000.0	9300.0
1971	7728.5	9756.4	11268.6	9491.3	8558.2	6936.8	5137.5	5885.0	8400.0	6480.0	13164.6	13617.1
1972	8819.2	9235.5	10758.6	9228.6	8337.3	6711.5	5000.0	15640.6	15866.6	11231.3	17116.9	12400.0
1973	7798.2	8812.0	10440.9	8861.4	8053.3	6433.6	5000.0	6000.0	13065.5	8179.5	12000.0	9300.0
1974	6759.9	8840.7	10517.6	9011.4	8172.6	6607.1	5000.0	6705.1	6024.7	6480.0	12000.0	9300.0
1975	6785.2	8972.9	10852.8	9324.6	8531.4	6936.5	5146.8	7127.3	12599.4	12773.3	12000.0	11361.1
1976	10711.2	8932.4	10440.6	8930.4	8090.6	6546.2	5000.0	7017.0	12826.8	7974.9	12000.0	9300.0
1977	7019.6	9443.5	11184.1	9440.5	8521.6	6905.6	5192.3	7545.3	15822.1	11643.2	12000.0	9300.0
1978	8255.9	9667.5	10814.4	9112.2	8205.5	6609.3	5000.0	9491.8	8673.7	10054.9	12000.0	9300.0
1979	7270.6	9329.2	10874.0	9264.9	8384.5	6660.9	5000.0	6000.0	6000.0	12451.2	12413.2	9300.0
1980	9689.5	10334.5	10568.8	8939.3	8040.3	6487.0	5000.0	9399.4	14710.3	14291.5	17367.1	13280.0
1981	10697.2	10128.5	10600.2	8987.1	8101.0	6518.3	5000.0	8788.0	7766.7	12600.6	32111.5	13171.0
1982	10435.2	9755.5	10740.7	9262.3	8310.8	6570.6	5110.6	10505.4	13715.5	12149.1	12000.0	9300.0
AVG	8647.2	9228.2	10681.2	9075.5	8186.2	6587.1	5025.3	8761.7	12197.7	11288.6	15077.8	12143.5

TABLE 3

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	9307.2	8725.5	8572.2	7288.7	5790.9	5244.7	5539.4	11510.0	14000.0	14000.0	14000.0	14000.0
1951	5000.0	5104.9	6781.7	5052.9	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	14000.0	14000.0
1952	5000.0	5343.9	6749.8	5622.5	6002.9	5398.7	5589.4	6000.0	15611.7	14000.0	14000.0	14000.0
1953	10717.8	9639.5	8833.2	7361.7	5822.9	5336.7	6284.4	13904.5	14754.8	14000.0	14000.0	14000.0
1954	5000.0	7491.2	8633.2	7561.7	6002.9	5298.7	5904.4	15310.0	14801.9	14000.0	14407.6	14000.0
1955	5000.0	5432.6	9099.0	8055.7	6402.9	5618.7	5869.4	9319.0	14000.0	14000.0	18790.8	14290.0
1956	7923.2	8042.5	8433.2	7241.7	5972.9	5458.7	5619.4	14412.5	15061.9	16158.4	24530.0	18330.0
1957	8778.2	9192.5	9275.2	7961.7	6502.9	5718.7	5869.4	13325.4	14000.0	14000.0	14000.0	15713.9
1958	11184.2	10096.5	10397.2	8226.7	6309.9	5666.7	6202.4	12696.9	14000.0	14000.0	14000.0	14000.0
1959	5000.0	5217.8	6793.8	5102.2	5000.0	5000.0	5000.0	15613.2	14000.0	14000.0	15904.3	16331.5
1960	9530.2	8992.5	9333.2	8106.7	6454.9	5715.7	5969.4	12440.1	14000.0	14000.0	14000.0	14000.0
1961	5000.0	8717.9	9827.2	8713.7	6756.9	6328.7	7319.4	13416.3	15593.5	14000.0	14155.6	14000.0
1962	8278.5	8842.5	9233.2	8161.7	6502.9	5918.7	6369.4	10988.8	16089.8	17887.0	23550.0	15890.0
1963	9695.2	8942.5	9133.2	7861.7	6502.9	5518.7	5499.4	13398.3	14244.3	15540.6	23670.0	14000.0
1964	7795.4	8392.5	8627.2	7309.7	5968.9	5231.7	5414.4	6000.0	16580.7	18291.9	16440.0	14000.0
1965	5000.0	8917.7	8344.2	7221.7	5862.9	5418.7	6029.4	11762.7	14000.0	14000.0	14000.0	16933.7
1966	10177.2	8240.5	8764.2	7661.7	6302.9	5818.7	6444.4	9645.0	16006.7	14000.0	14000.0	14000.0
1967	5000.0	5150.5	6714.4	6365.8	6402.9	5718.7	5836.4	12636.1	14000.0	14000.0	27406.0	16870.0
1968	7872.2	8495.5	9188.2	8242.7	6902.9	6418.7	6579.4	13060.6	14760.8	14000.0	14000.0	14000.0
1969	5000.0	5067.5	7664.8	7347.7	5924.9	5351.7	5691.4	9852.0	14000.0	14000.0	14000.0	14000.0
1970	5000.0	5211.5	6894.6	5206.8	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	14000.0	14000.0
1971	5000.0	6018.5	7437.7	5427.4	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	14000.0	14000.0
1972	5000.0	5296.1	6925.3	5275.2	6684.3	6341.7	6379.4	15573.3	15817.8	14000.0	16520.9	14000.0
1973	6249.8	8395.5	8598.2	7461.7	6202.9	5518.7	5696.4	8235.0	14000.0	14000.0	14000.0	14000.0
1974	5000.0	5018.4	6584.0	5000.0	5000.0	5000.0	5000.0	9013.1	14000.0	14000.0	14000.0	14000.0
1975	5000.0	5222.6	7023.3	5278.3	5000.0	5000.0	5000.0	6000.0	14771.0	14000.0	14000.0	14000.0
1976	6346.8	8135.5	8214.2	7235.7	5952.9	5418.7	6042.4	12620.0	14000.0	14000.0	14000.0	14000.0
1977	5000.0	5636.0	7287.2	5358.3	5000.0	5000.0	5000.0	6000.0	15592.4	14000.0	14000.0	14000.0
1978	7504.2	9667.5	9722.2	8290.7	6670.9	6123.7	6371.4	10452.5	14000.0	14000.0	14000.0	14000.0
1979	5000.0	5539.5	6994.5	5184.5	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	14000.0	14000.0
1980	5000.0	5412.5	8041.2	8009.7	6468.9	5918.7	6339.4	11672.0	14698.7	14283.4	17774.4	14000.0
1981	10000.4	10128.5	8906.2	7715.7	6238.9	5632.7	6037.4	12658.7	14000.0	14000.0	25338.0	14000.0
1982	9632.9	9755.5	9530.2	8561.7	6741.9	5721.7	6452.4	12245.1	14000.0	14000.0	14000.0	14000.0
AVG	6848.3	7378.3	8259.3	6984.1	5980.3	5510.9	5798.5	10720.0	14557.1	14368.5	16136.0	14495.7

TABLE 4

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	6335.0	5232.7	6548.9	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1951	5000.0	5023.9	6613.9	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1952	5000.0	5315.8	6686.1	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	20390.6	20920.0	16000.0
1953	6731.0	5470.4	6688.2	5000.0	5000.0	5000.0	5000.0	6000.0	18268.8	20200.0	20610.0	16000.0
1954	5000.0	5237.1	6602.6	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	19109.7	26100.0	16000.0
1955	5000.0	5469.5	6807.9	5090.4	5000.0	5000.0	5000.0	6000.0	14000.0	22106.4	25750.0	16000.0
1956	5000.0	5065.4	6571.0	5000.0	5000.0	5000.0	5000.0	6000.0	18855.2	31090.0	24530.0	18330.0
1957	5806.0	5505.7	6707.7	5000.0	5000.0	5000.0	5000.0	6000.0	16591.4	23310.0	20540.0	19800.0
1958	8212.0	5747.5	7265.3	5124.5	5000.0	5000.0	5000.0	6000.0	14000.0	21663.4	22540.0	16000.0
1959	5000.0	5242.0	6799.8	5122.9	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	29884.4	16920.0
1960	6558.0	5369.0	6801.8	5099.1	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	22948.7	20510.0
1961	7794.0	5404.5	6991.2	5320.0	5000.0	5000.0	5000.0	6000.0	22704.2	24570.0	22100.0	16000.0
1962	5000.0	5186.4	6635.0	5000.0	5000.0	5000.0	5000.0	6000.0	27733.7	25850.0	23550.0	16000.0
1963	6616.5	5022.6	6560.6	5000.0	5000.0	5000.0	5000.0	6000.0	17445.8	34400.0	23670.0	16000.0
1964	5000.0	5217.6	6610.9	5000.0	5000.0	5000.0	5000.0	6000.0	21859.1	22950.0	16440.0	16000.0
1965	5000.0	5213.8	6485.5	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	18228.0	21120.0	19350.0
1966	7205.0	5269.2	6712.5	5000.1	5000.0	5000.0	5000.0	6000.0	14065.3	19860.0	21830.0	16000.0
1967	5000.0	5186.8	6738.2	5121.9	5000.0	5000.0	5000.0	6000.0	14000.0	23247.5	32625.0	16870.0
1968	5000.0	5154.4	6629.6	5019.5	5000.0	5000.0	5000.0	6000.0	22111.0	26420.0	17170.0	16000.0
1969	5000.0	5154.5	6651.5	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1970	5000.0	5225.9	6886.8	5222.3	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1971	5000.0	6100.3	7522.4	5514.8	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1972	5000.0	5418.2	7069.8	5414.1	5000.0	5000.0	5000.0	6000.0	14000.0	22240.4	19290.0	16000.0
1973	5000.0	5046.6	6548.6	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1974	5000.0	5013.0	6539.2	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1975	5000.0	5194.5	6954.9	5247.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1976	7084.8	5128.0	6492.3	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	17665.9	16000.0
1977	5000.0	5560.7	7132.9	5243.4	5000.0	5000.0	5000.0	6000.0	14000.0	22067.3	19240.0	16000.0
1978	5000.0	5617.8	6884.3	5103.8	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	16000.0	16000.0
1979	5000.0	5414.1	6769.8	5014.3	5000.0	5000.0	5000.0	6000.0	14000.0	16340.1	20460.0	16000.0
1980	5000.0	5421.6	6675.9	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	31346.9	20960.0	16000.0
1981	5092.7	5416.8	6649.4	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	22718.8	38538.0	16000.0
1982	5000.0	5696.7	6804.5	5249.1	5000.0	5000.0	5000.0	6000.0	14000.0	23713.2	16000.0	17056.8
AVG	5528.3	5325.5	6758.8	5088.3	5000.0	5000.0	5000.0	6000.0	15625.3	20009.8	20862.9	16510.2

TABLE 5

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	9507.2	8725.5	9937.9	8331.6	7403.3	5861.2	5000.0	7550.5	10000.0	10000.0	11661.8	10000.0
1951	6102.6	8320.1	10040.2	8473.1	7605.1	5986.2	5000.0	6000.0	10000.0	10000.0	10000.0	14232.4
1952	8503.2	8886.5	10063.3	8432.8	7395.0	5828.6	5000.0	6000.0	13396.4	12671.0	13833.9	14480.0
1953	11174.2	9639.5	10085.7	8398.2	7462.8	5850.4	5000.0	14004.4	14056.3	11281.0	12586.4	11278.7
1954	8576.2	8504.0	9989.2	8333.5	7451.9	5842.2	5000.0	13921.9	10000.0	11139.1	14301.6	12826.7
1955	8342.2	8902.5	10158.8	8511.6	7578.9	5889.4	5000.0	7390.9	13988.6	12141.9	20659.9	14290.0
1956	7923.2	8316.1	9936.1	8290.7	7480.9	5955.0	5000.0	13584.4	15150.5	13568.6	23786.6	18330.0
1957	8778.2	9192.5	10097.1	8429.6	7535.9	5934.8	5000.0	12152.4	13890.0	11760.2	11967.4	19800.0
1958	11184.2	10096.5	10660.3	8574.2	7475.4	5832.9	5000.0	12234.1	10135.5	11540.7	13074.1	10000.0
1959	6634.0	8444.4	10096.2	8513.1	7641.1	6007.3	5000.0	11546.6	10000.0	12958.4	20244.3	16920.0
1960	9530.2	8992.5	10190.5	8548.0	7538.7	5906.5	5000.0	12491.2	10000.0	10000.0	12974.4	15176.1
1961	10766.2	9142.5	10379.3	8764.8	7656.5	6130.0	6061.8	13416.3	15594.1	13100.4	15054.6	13370.0
1962	8888.2	8842.5	10001.5	8390.0	7460.4	5883.7	5000.0	11005.2	16101.2	17358.4	23550.0	15890.0
1963	9695.2	8942.5	9953.1	8394.2	7541.5	5787.5	5000.0	13466.2	14039.5	13962.3	23302.5	12320.0
1964	9421.2	8463.5	9968.1	8316.0	7440.0	5839.8	5000.0	6000.0	16684.4	14239.8	16440.0	10000.0
1965	8848.0	8941.5	9810.0	8218.1	7344.2	5793.7	5000.0	9811.0	10155.5	12984.6	15170.2	19350.0
1966	10177.2	8537.3	10100.8	8462.1	7569.0	6009.7	5000.0	7284.0	16007.1	12128.1	13088.0	10000.0
1967	6373.7	8414.9	10072.3	8540.1	7646.1	6023.9	5000.0	11450.8	13809.6	13203.7	25542.7	16870.0
1968	7872.2	8495.5	10013.1	8463.0	7555.3	5993.0	5330.3	13060.6	14760.8	12648.6	14440.8	10000.0
1969	6302.8	8346.9	9936.6	8333.0	7443.2	5858.8	5000.0	6000.0	10000.0	10000.0	10000.0	10000.0
1970	6334.1	8421.8	10168.1	8677.1	7784.5	6159.6	5000.0	6000.0	10000.0	10000.0	10000.0	10000.0
1971	7217.6	9252.2	10756.4	8940.4	7976.6	6325.9	5000.0	6000.0	10000.0	10000.0	13262.2	10000.0
1972	7533.2	9235.5	10211.5	8662.3	7745.5	6106.9	5200.8	15573.3	15817.8	11230.9	19290.0	12400.0
1973	7798.2	8395.5	9885.1	8283.6	7446.4	5815.3	5000.0	6000.0	11595.2	10000.0	10931.5	10000.0
1974	6191.1	8237.2	9864.9	8313.5	7455.1	5890.3	5000.0	7651.7	10000.0	10000.0	10000.0	10000.0
1975	6249.6	8421.2	10266.8	8708.3	7889.9	6276.5	5000.0	6489.8	11404.2	12668.8	12336.0	16310.0
1976	10711.2	8396.0	9881.5	8347.4	7478.1	5922.4	5000.0	8716.3	10000.0	10000.0	10069.6	10000.0
1977	6442.2	8828.8	10511.6	8727.0	7790.7	6179.2	5000.0	6872.1	15593.1	11484.6	14767.3	12640.0
1978	10543.2	7667.5	10267.2	8545.8	7612.5	6004.1	5000.0	10459.1	10000.0	10000.0	10000.0	10000.0
1979	6712.5	8744.5	10236.5	8597.0	7694.8	5962.2	5000.0	6000.0	10000.0	12424.6	12388.3	10042.7
1980	10283.2	10334.5	10041.7	8372.9	7447.2	5881.5	5000.0	11654.1	13515.5	14268.0	18546.8	13280.0
1981	10697.2	10128.5	10053.6	8418.6	7505.5	5909.7	5000.0	11049.6	10000.0	12646.2	29904.6	13171.0
1982	10435.2	9755.5	10193.5	8695.9	7717.8	5964.9	5000.0	12262.0	11161.1	12085.3	10700.1	13473.6
AVG	8533.0	8908.0	10116.0	8485.1	7568.8	5958.0	5048.3	9790.9	12329.0	11924.1	15269.0	12922.8

TABLE 6

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	9307.2	8725.5	8593.3	7267.6	5965.1	5087.4	5539.4	11510.0	12000.0	12000.0	12000.0	12000.0
1951	5000.0	7059.2	8757.0	7127.3	6198.3	5000.0	5000.0	6000.0	12000.0	12000.0	12000.0	12000.0
1952	5767.7	8886.5	9033.2	7861.7	6002.9	5398.7	5589.4	6000.0	15611.7	12659.4	14419.7	14480.0
1953	11174.2	9639.5	8833.2	7361.7	6027.3	5154.1	6284.4	13904.5	14754.8	12000.0	12553.6	13114.6
1954	8576.2	8242.5	8639.2	7555.7	6014.7	5288.0	5904.4	15510.0	14801.9	12000.0	14369.4	12000.0
1955	5702.3	8731.2	9178.2	8055.7	6402.9	5618.7	5869.4	9319.0	13988.6	12141.9	20659.9	14290.0
1956	7923.2	8042.5	8585.5	7089.4	6033.1	5404.3	5619.4	14412.5	15061.9	16158.4	24530.0	18330.0
1957	8778.2	9192.5	9275.2	7961.7	6502.9	5716.7	5869.4	13325.4	13878.1	12000.0	12163.6	19800.0
1958	11184.2	10096.5	10397.2	8226.7	6309.9	5666.7	6202.4	12696.9	12645.1	12000.0	12340.2	12000.0
1959	5366.5	7161.5	8773.0	7143.2	6218.4	5000.0	5000.0	15154.5	12943.7	13018.1	17335.9	16920.0
1960	9530.2	8992.5	9333.2	8106.7	6454.9	5715.7	5969.4	12440.1	12000.0	12000.0	12000.0	13750.4
1961	10766.2	9142.5	9827.2	8713.7	6756.9	6328.7	7319.4	13416.3	15593.5	13099.6	15056.1	13370.0
1962	8888.2	8842.5	9233.2	8161.7	6502.9	5918.7	6369.4	10988.8	16089.8	17887.0	23550.0	15890.0
1963	9695.2	8942.5	9133.2	7861.7	6502.9	5518.7	5499.4	13398.3	14244.3	15540.6	23670.0	12320.0
1964	9421.2	8392.5	8627.2	7309.7	6001.9	5201.9	5414.4	6000.0	16580.7	18291.9	16440.0	12000.0
1965	6912.5	8941.5	8465.3	7100.7	5905.0	5380.7	6029.4	11762.7	13532.2	13026.5	13087.8	19350.0
1966	10177.2	8240.5	8764.2	7661.7	6302.9	5818.7	6444.4	9645.0	16006.7	12128.6	13088.0	12000.0
1967	5090.8	7104.3	8712.5	7136.9	6367.5	5718.7	5836.4	12636.1	13732.1	13148.6	28516.7	16870.0
1968	7872.2	8495.5	9188.2	8242.7	6902.9	6418.7	6579.4	13060.6	14760.8	12648.6	14440.8	12000.0
1969	5020.6	7162.1	8581.2	7229.7	5992.2	5290.9	5691.4	9852.0	12000.0	12000.0	12000.0	12000.0
1970	5074.9	7176.8	8914.8	7335.1	6375.0	5000.0	5000.0	6000.0	12000.0	12000.0	12000.0	12000.0
1971	5964.9	8026.5	9498.7	7592.0	6559.0	5000.0	5000.0	6000.0	12000.0	12000.0	12000.0	12000.0
1972	5084.9	7220.9	9143.1	8500.7	7030.9	6341.7	6379.4	15573.3	15817.8	12000.0	18520.9	12400.0
1973	7798.2	8395.5	8598.2	7461.7	6202.9	5518.7	5696.4	8235.0	12964.7	12000.0	12000.0	12000.0
1974	5000.0	6975.9	8572.9	6969.6	6054.2	5000.0	5000.0	9145.4	12000.0	12000.0	12000.0	12000.0
1975	5000.0	7180.9	9029.4	7386.3	6503.6	5000.0	5000.0	6000.0	14755.7	12732.3	12000.0	13402.6
1976	10711.2	8135.5	8531.0	6952.4	6025.9	5319.3	6042.4	12620.0	13466.2	12000.0	12000.0	12000.0
1977	5213.5	7616.7	9303.3	7462.4	6462.2	5000.0	5000.0	6000.0	15623.1	12000.0	13128.3	12640.0
1978	10543.2	9667.5	9722.2	8290.7	6670.9	6123.7	6371.4	10452.5	12000.0	12000.0	12000.0	12000.0
1979	5461.0	7502.6	8993.2	7280.5	6315.9	5000.0	5000.0	6000.0	12000.0	12474.4	12434.6	12000.0
1980	5917.7	10334.5	9549.2	8009.7	6468.9	5918.7	6339.4	11672.0	14698.7	14283.4	17774.4	13280.0
1981	10697.2	10128.5	8906.2	7715.7	6238.9	5632.7	6037.4	12658.7	12000.0	12672.5	28601.0	13171.0
1982	10435.2	9755.5	9530.2	8561.7	6741.9	5721.7	6452.4	12245.1	13680.5	12124.9	12000.0	12000.0
AVG	7729.0	8428.8	9037.1	7657.4	6333.8	5491.7	5798.5	10710.2	13794.9	12910.2	15475.2	13496.3

TABLE 7

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	6335.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1951	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1952	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	17922.4	20920.0	18000.0
1953	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	20272.4	20200.0	20610.0	18000.0
1954	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	19006.3	26100.0	18000.0
1955	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	22523.5	25750.0	18000.0
1956	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	18544.0	31090.0	24530.0	18330.0
1957	5806.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	18861.7	23310.0	20540.0	19800.0
1958	8212.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	15959.8	22880.0	22540.0	18000.0
1959	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	30105.7	18000.0
1960	5512.8	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	15616.7	23590.0	20510.0
1961	7794.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	25496.9	24570.0	22100.0	18000.0
1962	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	27609.5	25850.0	23550.0	18000.0
1963	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	18751.4	34400.0	23670.0	18000.0
1964	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	21741.3	22950.0	18000.0	18000.0
1965	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	16424.9	21120.0	19350.0
1966	7205.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	16111.5	19860.0	21830.0	18000.0
1967	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	23353.0	32620.0	18000.0
1968	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	22839.5	26420.0	18000.0	18000.0
1969	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1970	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1971	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0			14000.0	14000.0	18000.0	18000.0
1972	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	21119.9	19290.0	18000.0
1973	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1974	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1975	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1976	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1977	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	18211.2	19240.0	18000.0
1978	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	14000.0	18000.0	18000.0
1979	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	15240.0	20460.0	18000.0
1980	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	31995.3	20960.0	18000.0
1981	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14000.0	22928.7	38536.0	18000.0
1982	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6000.0	14395.3	24123.0	18000.0	18000.0
AVG	5329.2	5000.0	5000.0	5000.0	5000.0	5000.0	4997.6	5931.7	16017.7	19818.0	21577.7	18181.5

TABLE 8

Table 9

AVERAGE MONTHLY ENERGY PRODUCTION FOR
DOWNSTREAM FLOW CASES - WATANA 2185

	Average Energy Production (GWh)					
Month	Base Case	Case 1	Case 2	Case 3	Case 4	Case 5
Oct	292	219	168	288	255	160
Nov	329	258	182	318	299	169
Dec	395	302	248	374	332	179
Jan	330	253	184	309	278	181
Feb	263	193	164	245	264	163
Mar	230	195	181	209	194	181
Apr	164	194	172	167	194	172
May	211	284	118	250	284	115
Jun	265	323	316	271	318	317
Jul	287	325	325	308	323	325
Aug	338	339	339	329	336	339
Sep	316	359	359	340	354	359
Annual	3421	3244	2755	3405	3371	2659

Demand = 4916 GWh/year

Table 10

MINIMUM MONTHLY ENERGY PRODUCTION FOR
DOWNSTREAM FLOW CASES - WATANA 2185

Month	Minimum Energy Production (GWh)					
	Base Case	Case 1	Case 2	Case 3	Case 4	Case 5
Oct	238	156	159	218	166	157
Nov	325	180	182	305	255	165
Dec	395	245	248	374	323	168
Jan	330	179	182	309	258	166
Feb	263	151	150	245	198	150
Mar	230	166	168	209	163	167
Apr	161	156	162	162	154	162
May	142	68	3	143	170	3
Jun	103	325	264	197	223	263
Jul	96	325	325	210	324	325
Aug	316	339	339	238	288	339
Sep	276	360	359	300	359	359
Annual	2876	2646	2541	2909	2881	2424

Demand = 4916 GWh/year

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	7518.7	6725.8	6026.1	7997.2	7978.4	7871.4	12000.0	8000.0
1951	6577.7	7421.3	8186.5	7564.6	7541.5	6721.7	6126.7	7860.0	7332.5	7411.6	13599.1	21240.0
1952	7778.8	8697.2	9445.2	8597.2	7526.8	6715.3	5970.5	6257.5	10361.5	8443.3	20397.2	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	6703.7	6035.3	9056.7	9776.2	10399.7	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7591.6	7553.6	6713.9	6093.2	10022.2	9753.9	7811.3	22006.7	12920.0
1955	8158.9	8798.4	9462.3	8055.7	7658.1	6760.4	6065.0	7208.6	9213.4	11318.6	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7558.5	7570.3	6791.1	6055.2	9414.0	10008.7	22533.1	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	7630.6	6794.6	6060.1	8630.2	9125.4	10639.2	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	8224.4	8651.1	22540.0	8000.0
1959	7347.7	8292.5	8646.2	7709.7	7664.9	6812.6	6140.3	10210.3	9218.1	8611.7	28375.9	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7622.0	6765.0	6033.8	8028.2	7330.5	7899.7	17153.5	20510.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	7577.5	6758.6	6042.1	7007.9	10882.1	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	6678.3	5911.6	8710.3	9420.1	23338.5	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	7544.6	6710.8	5987.4	6000.0	11088.9	20149.8	16440.0	9571.0
1965	8170.0	8592.4	9261.1	7735.8	7476.9	6680.6	5977.3	7557.2	8874.0	11038.5	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	7634.8	6831.2	6185.3	7680.1	10626.6	8033.7	19392.1	11750.0
1967	7135.2	7742.5	8633.2	7761.7	7672.1	6827.5	6105.0	8171.5	9054.6	15521.4	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	7648.6	6838.9	6101.0	8451.3	9774.2	18723.7	17170.0	8816.0
1969	6794.2	7772.5	8127.2	7519.9	7505.6	6716.0	6069.5	7374.3	6137.5	6000.0	12000.0	8000.0
1970	5000.0	7662.1	8412.7	7854.7	7841.3	7017.1	8620.6	6000.0	8199.8	7933.7	12000.0	8000.0
1971	6985.4	8147.2	8735.9	7965.3	7902.3	7067.7	8390.3	9921.1	6000.0	6282.3	12000.0	8000.0
1972	7278.3	8647.7	9547.2	8879.9	8167.3	6913.9	6146.6	10217.4	10561.0	21327.2	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7561.0	7555.4	6701.7	5966.0	6066.1	8494.1	6779.8	13979.8	9074.0
1974	6705.2	7665.5	8167.2	7506.1	7482.1	6688.0	5980.0	8434.5	7896.3	7458.9	12000.0	8000.0
1975	6265.4	7447.7	8278.7	7663.7	7679.4	6871.8	6156.6	8701.9	9631.9	17449.2	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	7560.7	6761.0	6106.9	8715.1	8805.1	6807.4	12185.5	8000.0
1977	6888.7	7788.3	9382.6	8090.7	7703.0	6879.1	6209.8	9004.1	10327.6	15726.3	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	6958.7	7297.6	12000.0	8000.0
1979	7737.8	8677.5	8814.2	7658.7	7575.4	6679.6	5973.4	7181.4	6951.8	14885.3	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	7483.6	18468.4	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6803.9	6273.3	7869.1	8960.5	9955.8	15274.0	17807.0
AVG	7671.9	8432.5	9098.5	8152.9	7830.6	6864.6	6298.4	8069.6	8934.7	12619.1	19421.6	13083.9

TABLE 11

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	7386.5	6608.6	5919.0	8146.8	7976.8	7870.3	14000.0	8000.0
1951	5631.0	7298.9	8050.1	7437.5	7414.9	6607.8	6024.2	7861.4	7333.8	7412.4	14000.0	20666.7
1952	7778.8	8697.2	9445.2	8397.2	7394.6	6597.4	5863.5	6158.2	10358.9	8441.2	20842.2	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	6584.6	5929.7	9054.9	9775.0	10623.9	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	7421.0	6596.1	5985.8	10019.3	9751.5	7809.3	22385.2	12920.0
1955	8158.9	8798.4	9462.3	8055.7	7525.9	6641.4	5958.0	7196.1	9211.1	11675.3	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7425.9	7436.4	6670.5	5947.0	9410.0	10006.3	23018.5	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	7498.5	6675.7	5953.2	8627.2	9123.1	10986.2	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	8224.4	8651.1	22540.0	8000.0
1959	7347.7	8292.5	8646.2	7709.7	7532.7	6693.7	6033.3	10207.7	9215.8	8610.0	28724.3	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7490.0	6646.3	5927.1	8025.1	7327.5	7897.6	17502.9	20510.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	7445.4	6639.8	5935.4	7004.5	11238.3	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	6562.5	5806.1	8708.4	9418.9	23559.5	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	7412.4	6593.7	5880.3	6000.0	11034.0	20543.1	16440.0	9571.0
1965	8170.0	8592.4	9261.1	7735.8	7344.6	6561.6	5870.3	7553.9	8871.6	11386.1	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	7502.6	6712.3	6078.5	7930.7	10626.0	8033.2	19484.3	11750.0
1967	7135.2	7742.5	8633.2	7761.7	7539.9	6708.6	5998.1	8168.4	9052.7	15868.1	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	7516.5	6720.2	5994.3	8448.3	9772.4	19069.8	17170.0	8816.0
1969	6794.2	7772.5	8015.2	7386.2	7370.1	6594.0	5959.9	7368.4	6042.8	6000.0	14000.0	8000.0
1970	5000.0	6383.6	8265.3	7716.4	7700.1	6889.1	7795.0	6212.7	8079.0	7836.8	14000.0	8000.0
1971	6070.4	8010.9	8582.9	7821.1	7755.4	6934.0	7082.0	9192.3	6055.4	6795.6	14000.0	8000.0
1972	7442.1	8646.3	9545.6	8878.3	8335.5	6796.6	6041.3	10215.7	10559.9	21549.1	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7461.7	7422.0	6581.6	5858.0	6000.0	8472.3	6776.8	14514.5	9074.0
1974	6705.2	7665.5	8167.2	7373.5	7348.1	6568.7	5871.4	8430.2	7892.3	7456.0	14000.0	8000.0
1975	5471.1	7324.1	8141.7	7535.3	7551.1	6756.4	6052.9	8701.9	9631.9	17449.3	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	7428.5	6643.0	5999.8	8712.1	8802.7	6805.4	14000.0	8000.0
1977	6395.5	7666.8	8527.1	8090.7	7570.8	6760.3	6103.0	9001.2	10326.0	16072.4	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	6958.7	7297.6	14000.0	8000.0
1979	6770.0	7610.9	8814.2	7658.7	7443.2	6560.7	5866.5	7178.1	6949.5	15232.7	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	7483.6	18468.4	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6688.0	6167.9	7867.1	8959.3	10176.9	15274.0	17807.0
AVG	7552.1	8346.2	9051.8	8120.6	7738.8	6763.5	6149.7	8059.0	8937.2	12758.6	19917.5	13066.5

TABLE 12

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	7148.8	6394.0	5726.0	8141.2	7971.6	7866.6	16000.0	8000.0
1951	5000.0	7075.4	7796.4	7200.2	7176.5	6392.6	5830.9	7855.9	7328.7	7408.7	16000.0	19220.5
1952	7778.8	8697.2	9445.2	8397.2	7156.9	6382.9	5670.6	6000.0	10343.2	9152.5	20920.0	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	6374.5	5739.5	9051.6	9773.0	11023.3	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	7183.4	6381.6	5793.0	10014.6	9747.6	7806.0	23012.7	12920.0
1955	8158.9	8798.4	9462.3	8055.7	7288.4	6427.1	5765.4	7811.4	9211.1	11675.3	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7241.7	7196.5	6453.9	5752.3	9403.5	10002.2	23834.9	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	7261.0	6461.4	5760.6	8621.8	9119.6	11610.2	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	8224.4	8651.1	22540.0	8000.0
1959	7347.7	8292.5	8646.2	7709.7	7295.2	6479.2	5840.6	10203.1	9212.0	8607.0	29351.0	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	6433.4	5735.9	8020.5	7323.2	7894.7	18017.5	20510.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	7208.1	6425.7	5743.1	6998.4	11879.6	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	6350.8	5615.8	8705.0	9416.8	23960.9	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	7174.7	6379.1	5687.3	6000.0	10935.1	21254.8	16440.0	9571.0
1965	8170.0	8592.4	9261.1	7735.8	7106.9	6347.0	5677.5	7548.0	8867.4	12011.9	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	7265.1	6497.9	5886.0	7924.4	10622.5	8030.0	20112.3	11750.0
1967	7135.2	7742.5	8633.2	7761.7	7302.4	6494.2	5805.4	8162.8	9049.2	16492.3	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	7279.0	6506.1	6138.0	8445.7	9770.9	19363.2	17170.0	8816.0
1969	6794.2	7772.5	8015.2	7146.8	7129.3	6376.6	5764.5	7360.0	6798.5	6000.0	16000.0	8000.0
1970	5000.0	6442.6	8024.2	7489.2	7472.4	6684.2	8642.6	6000.0	7962.6	7687.1	16000.0	8000.0
1971	5202.7	7800.2	8347.1	7599.5	7533.5	6735.0	8419.4	9326.4	6000.0	6279.8	16000.0	8000.0
1972	5173.6	8039.6	9561.9	8582.0	7417.2	6588.7	5854.6	10215.4	10559.8	21589.1	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7461.7	7184.4	6367.1	5665.2	6530.2	8489.8	6776.5	16000.0	8000.0
1974	6392.4	7598.6	8167.2	7135.7	7107.4	6351.4	5676.0	8422.6	7885.2	7450.8	16000.0	8000.0
1975	5000.0	7101.0	7886.3	7297.3	7312.3	6540.9	5859.3	8696.0	9628.3	18138.9	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	7190.9	6428.5	5807.0	8706.7	8798.4	6801.8	16000.0	8000.0
1977	5675.0	7439.1	8146.6	8041.0	7333.4	6546.1	5910.6	8996.0	10322.9	16695.4	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	6958.7	7297.6	16000.0	8000.0
1979	5719.6	7339.4	8127.3	7658.7	7205.7	6346.3	5673.9	7172.0	6945.2	15858.1	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	7483.6	18468.4	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6476.5	6197.1	7865.4	8958.2	10362.9	16000.0	17056.8
AVG	7360.5	8292.5	8990.1	8062.0	7542.4	6582.6	6081.1	8083.2	8969.2	12961.0	20544.3	12967.4

TABLE 13

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	6892.3	6162.9	5518.4	8135.1	7966.1	7862.7	18000.0	8000.0
1951	5000.0	6876.0	7526.7	6950.3	6926.2	6167.1	5628.3	7855.5	7328.4	7408.4	18000.0	17195.4
1952	7778.8	8697.2	9445.2	8397.2	6900.5	6151.9	5463.1	6000.0	10236.7	9919.0	20920.0	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	6146.4	5534.6	9048.0	9770.8	11455.4	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6926.9	6150.6	5585.5	10009.5	9743.7	7802.5	23688.6	12920.0
1955	8158.9	8798.4	9462.3	8055.7	7032.1	6196.2	5558.0	7959.3	9207.6	12193.7	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7241.7	6940.0	6222.9	5544.7	9398.1	9998.8	24507.1	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	7004.6	6230.6	5553.3	8616.0	9115.9	12282.5	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	8224.4	8651.1	22540.0	8000.0
1959	7347.7	8292.5	8646.2	7709.7	7038.8	6248.3	5633.2	10198.1	9207.0	8603.7	30027.4	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	6205.3	5531.0	8016.6	7319.8	7892.4	18453.3	20510.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	6985.7	6195.5	6083.4	6997.4	11985.9	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	6122.7	5410.8	8701.4	9414.5	24393.2	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	6918.3	6148.1	5479.7	6000.0	10828.4	22021.6	18000.0	8000.0
1965	8149.1	8592.5	9261.3	7716.6	6850.5	6116.0	5470.0	7541.7	8862.7	12686.2	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	7008.7	6267.1	5678.8	7918.3	10618.7	8026.6	20788.5	11750.0
1967	7135.2	7742.5	8633.2	7761.7	7046.0	6263.4	5598.1	8156.8	9045.5	17165.0	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	7022.8	6310.5	6579.4	8445.7	9770.9	19363.2	18000.0	8000.0
1969	6753.8	7772.5	8015.2	6985.7	6870.9	6143.7	5555.4	7351.9	6833.6	6000.0	18000.0	8000.0
1970	5000.0	6480.6	7751.3	7233.1	7214.0	6450.7	8462.3	6000.0	7781.5	7513.6	18000.0	8000.0
1971	5000.0	7666.1	8074.7	7345.4	7277.3	6503.6	8432.8	8919.0	6000.0	6280.6	18000.0	8000.0
1972	5000.0	7088.0	8739.3	8500.7	7160.9	6358.2	6241.0	10214.8	10559.4	21678.3	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7461.7	6928.0	6136.2	5457.8	6814.8	8487.1	6773.9	18000.0	8000.0
1974	6243.5	6788.9	7483.5	7135.7	6850.9	6120.3	5468.4	8416.7	7880.1	7447.1	18000.0	8000.0
1975	5000.0	6902.6	7617.1	7047.7	7061.5	6315.9	5657.4	8695.7	9628.1	18175.3	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	6934.4	6197.4	5599.6	8700.9	8793.8	6797.9	18000.0	8000.0
1977	5000.0	7192.1	7871.6	7907.5	7075.0	6315.3	5703.5	8990.4	10319.7	17368.7	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	6958.7	7297.6	18000.0	8000.0
1979	5000.0	7112.6	7629.1	7095.9	6949.3	6115.5	5466.7	7165.5	6940.7	16532.0	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	7483.6	18468.4	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6248.6	6432.6	7865.4	8958.2	10362.9	18000.0	14990.1
AVG	7300.5	8209.8	8888.1	8002.4	7357.1	6388.3	5980.8	8081.2	8959.6	13169.5	21297.5	12771.1

TABLE 14

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV.	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	6584.4	5885.7	5269.5	8127.8	7959.5	7658.0	20000.0	8000.0
1951	5000.0	6620.1	7199.2	6044.5	6620.2	5891.6	5381.1	7851.0	7324.5	7405.8	20000.0	15636.8
1952	7778.8	8697.2	9445.2	8397.2	6590.5	5874.8	5214.3	6000.0	10108.7	10840.7	20920.0	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	5872.5	5732.6	9047.4	9770.4	11538.6	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6616.8	5873.5	5336.8	10003.4	9739.4	7798.3	24500.9	12920.0
1955	8158.9	8798.4	9462.3	8055.7	6724.3	5919.4	5309.6	7952.0	9202.2	13001.6	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7241.7	6629.7	5945.8	5296.0	9391.8	9994.8	25315.4	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	6696.9	5953.8	5445.4	8610.2	9112.2	12951.0	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	8224.4	8651.1	22540.0	8000.0
1959	7347.7	8292.5	8646.2	7709.7	6731.0	5971.4	5384.6	10192.1	9201.6	8599.8	30837.9	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	5931.5	5746.4	8016.0	7319.3	7892.1	20000.0	18980.8
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	6985.7	5921.7	6366.3	6997.4	11985.9	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	5848.8	5165.0	8697.0	9411.7	24912.1	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	6608.0	5871.0	5230.8	6000.0	10700.6	22943.5	20000.0	8000.0
1965	7100.7	8601.6	8795.8	7221.7	6542.6	5838.9	5221.4	7534.1	8657.4	13494.8	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	6700.9	5990.2	5895.6	7915.0	10616.7	8024.8	21140.5	11750.0
1967	7135.2	7742.5	8633.2	7761.7	6738.3	5986.5	5349.7	8149.6	9041.0	17971.8	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	6902.9	6418.7	6579.4	8445.7	9770.9	19363.2	20000.0	8000.0
1969	5991.6	6560.1	7950.7	6985.7	6563.0	5866.6	5306.7	7344.1	6826.3	6373.3	20000.0	8000.0
1970	5000.0	6530.5	7423.9	6927.6	6906.0	6171.5	8414.2	6000.0	7577.7	7307.3	20000.0	8000.0
1971	5000.0	7364.7	7747.2	7040.4	6970.3	6225.4	8472.5	8392.4	6000.0	6279.7	20000.0	8000.0
1972	5000.0	6842.4	7429.7	8048.3	7030.9	6341.7	6379.4	10214.8	10559.4	21678.3	20000.0	11666.3
1973	7459.6	8491.3	8844.1	7461.7	6618.9	5859.3	5209.2	6806.7	8481.3	6769.2	20000.0	8000.0
1974	5906.5	6493.2	7105.2	6952.3	6543.0	5843.2	5219.6	8409.6	7874.0	7442.6	20000.0	8000.0
1975	5000.0	6652.8	7289.6	6743.0	6757.0	6041.3	5411.1	8691.5	9625.6	18657.2	20000.0	14336.3
1976	8540.2	8558.0	9303.6	7908.3	6626.8	5920.4	5350.9	8094.0	8787.9	6793.0	20000.0	8000.0
1977	5000.0	6932.7	7545.6	7297.9	6769.3	6038.6	6190.2	8989.7	10319.3	17451.5	20000.0	11854.7
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	6958.7	7297.6	20000.0	8000.0
1979	5000.0	6901.1	7309.5	6704.9	6653.5	5849.5	5228.1	7168.7	6942.9	16206.1	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8680.1	7733.2	6962.6	7590.8	7483.6	18468.4	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6229.5	6452.4	7865.4	8958.2	10362.9	20000.0	12923.5
AVG	7235.4	8119.9	8761.7	7900.8	7153.9	6181.4	5896.9	8062.3	8943.4	13373.1	22233.9	12509.0

TABLE 15

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	6561.5	5865.1	5251.0	8127.2	10000.0	10000.0	12000.0	10000.0
1951	5000.0	6512.3	7156.5	6603.9	6570.7	5848.7	5342.8	7829.2	10000.0	10000.0	12000.0	20973.0
1952	7778.8	8697.2	9445.2	8397.2	6567.8	5854.2	5195.8	6000.0	10099.2	10909.0	20920.0	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	5852.1	5753.9	9047.4	10000.0	11316.4	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6594.1	5852.9	5318.3	10003.0	10000.0	10000.0	22106.5	12920.0
1955	8158.9	8798.4	9462.3	8055.7	6701.4	5898.8	5301.4	7951.5	10000.0	12279.3	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7241.7	6607.0	5925.2	5277.5	9391.5	10000.0	25369.7	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	6674.0	5933.2	5488.0	8610.2	10000.0	12091.8	20540.0	19800.0
1958	8621.3	8990.2	9839.5	8793.9	8606.9	7216.2	6202.4	8173.1	10000.0	10000.0	19472.8	10000.0
1959	6310.0	7364.8	8646.2	7709.7	6708.1	5950.8	5366.2	10191.7	10000.0	10000.0	28724.7	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	5911.1	5767.5	8016.0	10000.0	10000.0	13818.0	20510.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10347.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	6985.7	5918.7	6369.4	6997.4	11985.9	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	5828.4	5179.3	8696.9	10000.0	24349.4	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	6585.3	5850.4	5212.3	6000.0	10754.9	22950.0	16440.0	10000.0
1965	7951.5	8594.2	9263.3	7535.2	6517.2	5818.3	5202.9	7533.5	10000.0	12451.0	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	6678.1	5969.6	5938.3	7915.0	10616.7	10000.0	19165.3	11750.0
1967	7135.2	7742.5	8633.2	7761.7	6715.4	5966.0	5331.2	8149.0	10000.0	17103.4	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	6902.9	6418.7	6579.4	8445.7	10000.0	19141.5	17170.0	10000.0
1969	5933.2	7478.1	8015.2	6985.7	6540.1	5846.0	5288.2	7343.6	10000.0	10000.0	12000.0	10000.0
1970	5000.0	6549.9	7405.5	6910.9	6889.8	6157.1	9046.6	6000.0	10000.0	10000.0	12000.0	10000.0
1971	5000.0	7361.3	7722.6	7017.4	6947.1	6204.5	8454.9	8381.3	10000.0	10000.0	12000.0	10000.0
1972	5000.0	6291.8	7412.9	7077.3	7030.9	6341.7	6379.4	10214.8	10559.4	21678.3	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7461.7	6597.3	5838.7	5190.8	6806.1	10000.0	10000.0	12000.0	10000.0
1974	5952.6	6628.8	8167.2	7135.7	6520.1	5822.5	5201.1	8409.1	10000.0	10000.0	12000.0	10000.0
1975	5000.0	6558.8	7251.4	6706.1	6715.6	6004.1	5377.7	8676.1	10000.0	20092.8	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	6601.3	5899.7	5332.4	8693.5	10000.0	10000.0	12000.0	10000.0
1977	5271.2	6865.1	8293.4	8090.7	6746.4	6018.1	6232.9	8989.7	10319.3	17451.5	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	10000.0	10000.0	12000.0	10000.0
1979	5000.0	6858.0	7281.4	6677.8	6624.9	5823.7	5205.0	7162.9	10000.0	13843.3	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	10000.0	16033.2	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6229.5	6452.4	7865.4	10000.0	10000.0	14628.7	17807.0
AVG	7237	8097.6	8827.5	7906.1	7137.9	6165.2	5911.3	8060.5	10143.4	14203.7	19116.5	13637.6

TABLE 16

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	5790.9	5244.7	5539.4	8117.7	10000.0	10000.0	20000.0	10000.0
1951	5000.0	5010.8	5353.4	5000.0	5000.0	5000.0	5000.0	7398.0	10000.0	10000.0	20000.0	13674.9
1952	7778.8	8697.2	9445.2	8397.2	6002.9	5398.7	5589.4	6000.0	10031.0	11559.8	20920.0	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	5338.7	6284.4	9047.4	10000.0	11316.4	20610.0	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6002.9	5298.7	5904.4	9999.3	10000.0	10000.0	22631.2	12920.0
1955	8158.9	8798.4	9462.3	8055.7	6402.9	5618.7	5869.4	7951.5	10000.0	12279.3	25750.0	14290.0
1956	7689.6	8283.9	8433.2	7241.7	5972.9	5458.7	5619.4	9385.2	10000.0	26084.3	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	6502.9	5718.7	5869.4	8610.2	10000.0	12091.8	20540.0	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	10000.0	10000.0	20000.0	10000.0
1959	5000.0	8173.7	8646.2	7709.7	6309.9	5498.7	5919.4	10189.6	10000.0	10000.0	29003.2	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	5715.7	5969.4	8016.0	10000.0	10000.0	20000.0	14122.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	10340.4	16004.2	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	6985.7	5918.7	6369.4	6997.4	11985.9	25850.0	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	5518.7	5499.4	8696.9	10000.0	24349.4	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	5968.9	5231.7	5414.4	6000.0	11767.4	22950.0	20000.0	10000.0
1965	5288.0	8602.8	8671.9	7221.7	5862.9	5418.7	6029.4	7531.7	10000.0	12643.6	21120.0	19350.0
1966	8487.8	8662.1	9463.4	8243.9	6302.9	5818.7	6444.4	7915.0	10616.7	10000.0	20000.0	10887.4
1967	7135.2	7742.5	8633.2	7761.7	6402.9	5718.7	5836.4	8148.7	10000.0	17144.4	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	6902.9	6418.7	6579.4	8445.7	10000.0	19141.5	20000.0	10000.0
1969	5000.0	5518.1	8013.2	6985.7	5725.9	5334.7	6179.4	7339.8	10000.0	10000.0	20000.0	10000.0
1970	5000.0	5172.1	5352.2	5175.2	5141.1	5000.0	5409.0	6002.0	10000.0	10000.0	20000.0	10000.0
1971	5000.0	5628.9	5832.3	5247.0	5162.7	5000.0	5000.0	6000.0	10000.0	10000.0	20000.0	10000.0
1972	5000.0	5156.8	8533.4	8500.7	7030.9	6341.7	6379.4	10214.8	10559.4	21678.3	20000.0	11666.3
1973	7459.6	8491.3	8844.1	7461.7	6202.9	5518.7	5696.4	6804.2	10000.0	10000.0	20000.0	10000.0
1974	5000.0	5000.0	5270.8	5000.0	5502.7	5242.7	5661.4	8402.0	10000.0	10000.0	20000.0	10000.0
1975	5000.0	5034.8	5488.9	5030.3	5040.9	5000.0	5642.3	8675.9	10000.0	20116.9	20000.0	14336.3
1976	8540.2	8558.0	9303.6	7908.3	5952.9	5418.7	6042.4	8690.2	10000.0	10000.0	20000.0	10000.0
1977	5000.0	5372.7	5709.6	5141.5	6212.8	6018.7	6349.4	8989.7	10319.3	17451.5	20000.0	11854.7
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6824.8	10000.0	10000.0	20000.0	10000.0
1979	5000.0	5279.7	5483.4	5008.2	5000.0	5000.0	5000.0	6853.6	10000.0	13637.2	20460.0	10770.0
1980	7900.6	8740.7	9400.2	8650.4	8585.4	7440.2	6339.4	7462.1	10047.9	19808.5	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	10000.0	16033.2	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6229.5	6452.4	7865.4	10000.0	10000.0	20000.0	12256.6
AVG	7051.8	7700.3	8400.3	7529.4	6616.7	5789.2	5957.2	7964.6	10172.0	14246.7	22010.1	12922.7

TABLE 17

1 POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	5790.9	5244.7	5539.4	8117.7	14000.0	14000.0	14000.0	14000.0
1951	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6938.0	14000.0	14000.0	14000.0	14000.0
1952	5000.0	5207.2	9033.2	7861.7	6002.9	5398.7	5589.4	6000.0	14000.0	14000.0	14638.8	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	5338.7	6284.4	9047.4	14000.0	14000.0	14055.4	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6002.9	5298.7	5904.4	9999.3	14000.0	14000.0	14760.2	14000.0
1955	7297.0	8800.9	9276.5	8055.7	6402.9	5618.7	5869.4	7951.5	14000.0	14000.0	20158.3	14290.0
1956	7689.6	8283.2	8433.2	7241.7	5972.9	5458.7	5619.4	9385.2	14000.0	22213.3	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	6502.9	5718.7	5869.4	8610.2	14000.0	14000.0	14760.9	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	14000.0	14000.0	14000.0	14000.0
1959	5000.0	5000.0	5975.5	7709.7	6309.9	5498.7	5919.4	10189.6	14000.0	14000.0	21132.2	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	5715.7	5969.4	8016.0	14000.0	14000.0	14000.0	14000.0
1961	7395.3	8757.5	9658.0	8944.3	8753.7	6454.3	7162.3	8696.6	14000.0	14000.0	20569.4	14000.0
1962	7670.1	8601.6	9403.6	8694.4	6656.1	5918.7	6369.4	6997.4	14000.0	23900.9	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	5518.7	5499.4	8696.9	14000.0	20478.4	23670.0	14000.0
1964	7123.9	8620.3	9078.1	7309.7	5968.9	5231.7	5414.4	6000.0	14000.0	20789.4	16440.0	14000.0
1965	5000.0	8590.5	8660.9	7221.7	5862.9	5418.7	6029.4	7531.7	14000.0	14000.0	15892.7	19350.0
1966	8487.8	8662.1	9463.4	8243.9	6302.9	5818.7	6444.4	7915.0	14000.0	14000.0	14000.0	14000.0
1967	5000.0	5519.6	8633.2	7761.7	6402.9	5718.7	5836.4	8148.7	14000.0	14000.0	31893.4	16870.0
1968	7712.8	8595.0	9251.2	8242.7	6902.9	6418.7	6579.4	8445.7	14000.0	15270.6	17170.0	14000.0
1969	5000.0	5000.0	7475.6	6985.7	5725.9	5334.7	6179.4	7339.8	14000.0	14000.0	14000.0	14000.0
1970	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5518.0	6000.0	14000.0	14000.0	14000.0	14000.0
1971	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5745.9	5998.6	14000.0	14000.0	14000.0	14000.0
1972	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	9326.5	14000.0	15738.2	19290.0	14000.0
1973	6249.8	8395.5	8598.2	7461.7	6202.9	5518.7	5696.4	6804.2	14000.0	14000.0	14000.0	14000.0
1974	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	7426.7	14000.0	14000.0	14000.0	14000.0
1975	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	7620.5	14000.0	14000.0	14000.0	15960.5
1976	8540.2	8558.0	9303.6	7908.3	5952.9	5418.7	6042.4	8690.2	14000.0	14000.0	14000.0	14000.0
1977	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	8431.2	14000.0	14000.0	16577.8	14000.0
1978	7648.4	8903.0	9576.2	8787.3	8719.5	6241.2	6371.4	6624.8	14000.0	14000.0	14000.0	14000.0
1979	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	6211.7	14000.0	14000.0	14000.0	14000.0
1980	5142.8	8764.2	9426.9	8676.3	7441.3	5918.7	6339.4	7462.1	14000.0	15983.8	20960.0	14000.0
1981	7484.6	8641.8	9223.0	8569.2	8691.8	7637.2	6709.4	7590.8	14000.0	14000.0	36030.6	14000.0
1982	8427.4	8959.2	9520.7	8889.9	8788.9	6129.2	6452.4	7865.4	14000.0	14000.0	14000.0	14000.0
AVG	6649.0	7363.5	8052.0	7375.7	6448.8	5612.3	5853.2	7825.8	14000.0	15102.3	17517.6	14823.0

TABLE 18

1 POST-PROJECT FLOWS AT GOLD CREEK (CFS)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	8229.0	8641.6	9354.1	7666.1	5790.9	5244.7	5539.4	8117.7	12000.0	12000.0	12000.0	12000.0
1951	5000.0	5722.0	6117.1	5636.4	5606.5	5000.0	5000.0	7612.6	12000.0	12000.0	12000.0	17128.9
1952	7778.8	8697.2	9445.2	8397.2	6002.9	5398.7	5589.4	6000.0	12000.0	12000.0	18574.3	14480.0
1953	8435.8	8792.8	9433.0	8666.9	7652.7	5338.7	6284.4	9047.4	12000.0	12000.0	17990.9	15270.0
1954	8068.4	8650.3	8746.3	7561.7	6002.9	5298.7	5904.4	9999.3	12000.0	12000.0	18695.7	12920.0
1955	8158.9	8798.4	9462.3	8055.7	6402.9	5618.7	5869.4	7951.5	12000.0	12000.0	24093.8	14290.0
1956	7689.6	8283.9	8433.2	7241.7	5972.9	5458.7	5619.4	9385.2	12000.0	24148.8	24530.0	18330.0
1957	8219.0	8839.0	9470.0	8668.2	6502.9	5718.7	5869.4	8610.2	12000.0	12000.0	18696.4	19800.0
1958	8621.3	8990.2	9839.3	8793.9	8606.9	7216.2	6202.4	8173.1	12000.0	12000.0	15537.3	12000.0
1959	5549.6	6150.4	8646.2	7709.7	6309.9	5498.7	5919.4	10189.6	12000.0	12000.0	25067.7	16920.0
1960	8069.4	8734.1	9526.8	8794.1	7373.6	5715.7	5969.4	8016.0	12000.0	12000.0	12000.0	18322.0
1961	8315.7	8749.6	9649.1	8935.9	8742.9	7321.5	7162.3	8696.6	12000.0	14404.9	22100.0	13370.0
1962	7991.2	8598.9	9400.4	8691.1	6985.7	5918.7	6369.4	6997.4	12000.0	25836.3	23550.0	15890.0
1963	7905.8	8486.3	9354.7	8681.5	7819.9	5518.7	5499.4	8696.9	12000.0	22413.9	23670.0	12320.0
1964	7977.6	8613.0	9373.9	7793.2	5968.9	5231.7	5414.4	6000.0	12000.0	22724.9	16440.0	12000.0
1965	6912.5	8602.8	8671.9	7221.7	5862.9	5418.7	6029.4	7531.7	12000.0	12000.0	19828.2	19350.0
1966	8487.8	8662.1	9463.4	8243.9	6302.9	5818.7	6444.4	7915.0	12000.0	12000.0	15826.6	12000.0
1967	6893.2	7742.5	8633.2	7761.7	6402.9	5718.7	5836.4	8148.7	12000.0	15208.9	32620.0	16870.0
1968	7712.8	8595.0	9251.2	8242.7	6902.9	6418.7	6579.4	8445.7	12000.0	17206.0	17170.0	12000.0
1969	5176.8	6259.7	8015.2	6985.7	5725.9	5334.7	6179.4	7339.8	12000.0	12000.0	12000.0	12000.0
1970	5000.0	5903.0	6345.7	5918.4	5890.1	5254.8	8458.4	6000.0	12000.0	12000.0	12000.0	12000.0
1971	5000.0	6387.7	6666.6	6031.0	5954.3	5309.0	8535.9	6765.6	12000.0	12000.0	12000.0	12000.0
1972	5000.0	5949.0	6382.9	5935.0	5878.1	5207.1	5162.2	10214.8	12000.0	20284.1	19290.0	12400.0
1973	7459.6	8491.3	8844.1	7461.7	6202.9	5518.7	5696.4	6804.2	12000.0	12000.0	12000.0	12000.0
1974	5000.0	5595.4	6031.6	5569.8	5748.7	5242.7	5661.4	8402.0	12000.0	12000.0	12000.0	12000.0
1975	5000.0	5746.2	6213.1	5740.3	5752.3	5139.4	5000.0	8577.8	12000.0	18085.5	18090.0	16310.0
1976	8540.2	8558.0	9303.6	7908.3	5952.9	5418.7	6042.4	8690.2	12000.0	12000.0	12000.0	12000.0
1977	5000.0	6081.8	6472.5	5849.9	6181.2	6018.7	6349.4	8989.7	12000.0	15825.0	19240.0	12640.0
1978	8339.6	8897.2	9569.5	8781.0	8711.0	6892.5	6371.4	6624.8	12000.0	12000.0	12000.0	12000.0
1979	5000.0	5909.1	6248.3	5718.9	5668.8	5000.0	5000.0	6892.6	12000.0	12000.0	19485.6	12000.0
1980	7274.7	8746.1	9406.3	8656.2	8591.7	6853.0	6339.4	7462.1	12000.0	17919.3	20960.0	13280.0
1981	7852.1	8638.6	9219.5	8565.8	8688.1	7733.2	6962.6	7590.8	12000.0	14097.7	37870.0	13790.0
1982	8534.4	8958.3	9519.7	8888.9	8787.6	6229.5	6452.4	7865.4	12000.0	12000.0	12000.0	16456.6
AVG	7096.8	7834.9	8500.3	7599.2	6695.4	5758.3	6100.4	7992.6	12000.0	14550.2	18222.0	14125.4

TABLE 19

Table 20

AVERAGE MONTHLY ENERGY PRODUCTION FOR DOWNSTREAM FLOW
CASES - WATANA 2185 AND DEVIL CANYON

	Average Energy Production (GWh)								
Month	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Oct	511	512	511	513	514	511	510	506	514
Nov	567	564	561	563	564	559	551	526	558
Dec	635	632	627	620	610	615	584	562	591
Jan	566	564	560	555	548	548	521	506	526
Feb	488	482	470	458	445	444	411	400	416
Mar	469	463	450	437	422	421	393	373	393
Apr	401	395	386	379	372	372	386	370	381
May	419	419	421	421	420	420	417	416	418
Jun	390	389	392	392	391	392	391	392	392
Jul	390	388	389	389	390	392	392	392	392
Aug	410	410	410	410	410	410	410	410	410
Sep	434	434	434	434	434	434	434	434	434
Annual	5680	5651	5609	5569	5521	5520	5400	5288	5426

Demand = 5945 GWh/year

Table 21

MINIMUM MONTHLY ENERGY PRODUCTION FOR DOWNSTREAM FLOW
CASES - WATANA 2185 AND DEVIL CANYON

	Minimum Energy Production (GWh)								
Month	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Oct	460	460	517	496	517	517	517	517	517
Nov	532	532	486	468	547	561	438	356	484
Dec	579	571	550	534	506	504	373	313	428
Jan	532	522	505	505	465	464	343	303	393
Feb	474	466	451	435	415	414	306	291	351
Mar	464	456	441	425	406	404	312	242	343
Apr	396	389	377	363	347	345	296	192	293
May	428	428	357	428	328	327	326	254	278
Jun	344	338	392	392	392	392	372	392	392
Jul	353	350	392	392	392	392	392	392	392
Aug	410	410	410	410	410	410	410	410	410
Sep	434	434	434	434	434	434	434	434	434
Annual	5407	5356	5312	5282	5159	5166	4519	4097	4716

Demand = 5945 GWh/year

Table 22

WEEKLY DOWNSTREAM FLOW REQUIREMENTS AT GOLD CREEK
FOR WATANA 2185 AND DEVIL CANYON RESERVOIRS

Week	Flow (cfs) Case 1	Case 2	Case 3	Case 4
1	5000	5000	5000	5000
2	5000	5000	5000	5000
3	5000	5000	5000	5000
4	5000	5000	5000	5000
5	5000	5000	5000	5000
6	5000	5000	5000	5000
7	5000	5000	5000	5000
8	5000	5000	5000	5000
9	5000	5000	5000	5000
10	5000	5000	5000	5000
11	5000	5000	5000	5000
12	5000	5000	5000	5000
13	5000	5000	5000	5000
14	5000	5000	5000	5000
15	5000	5000	5000	5000
16	5000	5000	5000	5000
17	5000	5000	5000	5000
18	5000	5000	5000	5000
19	5000	5000	5000	5000
20	5000	5000	5000	5000
21	5000	5000	5000	5000
22	5000	5000	5000	5000
23	5000	5000	5000	5000
24	5000	5000	5000	5000
25	5000	5000	5000	5000
26	5000	5000	5000	5000
27	5000	5000	5000	5000
28	5000	5000	5000	5000
29	5000	5000	5000	5000
30	5000	5000	5000	5000
31	5000	5000	5000	5000
32	6000	6000	6000	6000
33	6000	6000	6000	6000
34	6000	6000	6000	6000
35	6000	6000	6000	6000
36	6000	6000	6000	6000
37	6000	6000	6000	6000
38	6000	6000	6000	6000
39	6000	6000	6000	6000
40	6000	6000	6000	6000
41	6000	6000	6000	6000
42	6000	6000	6000	6000
43	6000	6000	6000	6000
44	6000	6000	6000	6000
45	8000	8000	8000	8000
46	12,000	12,000	20,000	20,000
47	12,000	12,000	20,000	20,000
48	8000	12,000	8000	20,000
49	8000	8000	8000	8000
50	8000	8000	8000	8000
51	8000	8000	8000	8000
52	8000	8000	8000	8000

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

1950	12856.0	8578.6	8412.1	8376.2	9062.4	9035.5	8996.3	9006.4	8203.2	8217.0	8218.6	8202.0	8196.7
	9308.5	9326.0	9346.0	8506.1	8661.4	8671.9	7852.3	7867.9	6830.2	6206.8	6215.3	6234.7	6256.0
	6611.1	6627.5	6649.5	6682.1	6490.0	7119.5	7733.5	7778.6	6443.8	6538.7	6265.0	7307.9	6988.1
	7928.0	8051.5	8254.1	9050.4	8427.0	8770.4	8530.2	12000.0	12000.0	8000.0	8000.0	8000.0	8000.0
1951	7504.8	8469.1	8409.5	7469.1	8866.4	8874.6	8535.8	8062.2	8165.1	8172.4	8187.6	7437.9	7450.4
	9330.7	9350.0	8495.8	8519.8	7858.5	7870.8	7892.1	7913.6	6220.0	6227.9	6241.1	6254.3	6267.6
	6630.0	6668.7	6742.3	6878.0	6920.4	8138.3	8330.1	7247.3	6296.8	7697.5	6762.5	6943.0	6942.3
	7999.2	8383.6	8835.2	8606.2	8006.2	8144.9	8254.9	12000.0	20385.4	30057.0	18671.0	19286.0	18657.0
1952	9229.0	8626.3	8443.4	8339.7	9079.2	9058.2	8979.1	8991.2	8256.4	8237.3	8250.8	8264.3	8277.9
	9371.9	9386.9	9406.3	9427.0	8675.7	8662.2	7874.5	7895.2	6844.3	6442.8	6227.0	6239.7	6252.5
	6613.3	6627.7	6642.3	6656.9	6354.0	6402.3	6474.1	6747.8	6911.1	7206.4	8319.8	9078.4	8560.7
	9330.5	8414.3	9007.2	9220.5	19966.8	25071.0	19686.0	14943.0	17329.0	18886.0	12771.0	11029.0	15086.0
1953	11143.0	10390.0	8745.3	8528.8	9231.8	9158.4	8998.8	9081.8	8262.5	8193.3	8207.1	8220.9	8234.8
	9298.3	9308.1	9328.4	9348.9	8613.9	8617.0	8642.6	7855.4	6813.2	6828.8	6760.4	6220.4	6233.2
	7279.8	6617.5	6694.2	6816.4	7750.3	8674.5	8489.6	9689.5	6698.7	8726.5	7811.6	7230.7	7636.3
	8450.4	8214.5	8379.3	13588.2	25643.0	21857.0	17514.0	18029.0	21500.0	18786.0	17114.0	14271.0	12426.0
1954	8844.2	8691.5	8494.6	8389.0	8954.9	8955.3	8951.6	8951.3	8215.9	8197.7	8212.0	8226.4	8236.9
	9347.0	9363.3	9384.1	8529.1	8669.1	8675.4	7886.6	7907.4	6850.3	6212.4	6225.3	6238.3	6251.4
	6618.6	6633.2	6716.6	6741.5	6966.8	7571.3	8391.5	9331.1	6814.3	7223.6	7546.4	7414.4	7960.1
	8959.1	8385.1	8310.0	8295.0	14123.3	24000.0	24000.0	24000.0	23000.0	16286.0	14000.0	13057.0	9581.0
1955	8663.7	8624.5	8460.4	8468.2	9102.9	9037.7	9032.9	9010.4	8282.9	8271.6	8279.4	8264.2	8277.8
	9410.1	9430.0	9416.2	9424.8	8691.9	8702.7	7976.0	7933.9	6874.2	6869.9	6245.9	6258.1	6270.4
	7316.2	6652.8	6666.6	6680.5	6604.9	6715.0	6801.9	7948.5	6390.2	6693.3	8086.0	8826.3	8544.8
	10048.7	9389.7	8636.4	11326.7	22614.0	20900.0	21443.0	26071.0	37243.0	19671.0	15029.0	12214.0	10993.0
1956	8745.3	8535.1	8431.9	8089.2	8970.3	8941.8	8938.9	8101.6	8198.3	8180.4	8195.2	8210.0	7460.0
	9318.8	9334.4	9356.5	8502.6	8659.5	7870.9	7891.7	7912.6	6224.5	6235.5	6248.1	6260.8	6273.5
	6632.0	6646.4	6661.0	6675.7	6512.4	7488.7	8010.3	10390.8	6829.6	8567.8	9657.9	8340.4	7897.5
	9430.8	15314.2	32000.0	31229.0	31429.0	28771.0	26000.0	20729.0	17714.0	16000.0	22429.0	21857.0	16000.0
1957	8741.1	8744.2	8489.7	8453.5	9106.3	9056.2	9054.6	9049.6	8315.6	8287.6	8292.9	8257.2	8270.8
	9373.9	9389.1	9408.2	9428.0	8694.2	8704.1	8727.7	7937.8	6878.4	6874.3	6250.7	6262.6	6274.6
	730[illegible]	6645.2	6659.0	6672.9	6582.0	6844.9	7244.3	8512.3	7853.8	9007.7	8492.7	8054.0	7002.1
	879[illegible]	8567.9	8838.7	17436.5	20957.0	20943.0	20829.0	19100.0	21143.0	18914.0	20643.0	20071.0	22029.0
1958	10333.0	8927.0	8744.9	8772.8	9276.3	9182.4	9120.9	9055.2	8384.6	8475.2	8413.1	8318.7	8273.9
	9411.7	9395.3	9382.3	9390.0	8634.7	8649.6	8651.7	8661.2	6817.8	6832.2	6843.2	6850.2	6865.2
	7268.2	7300.7	7329.9	7380.0	6613.8	7045.1	8029.1	9111.5	6859.6	7954.1	7927.8	7478.1	7223.3
	8673.0	8654.6	8636.4	8570.1	33140.7	27529.0	20443.0	16571.0	12000.0	8057.0	8500.0	8000.0	8000.0
1959	7601.1	8532.4	8513.6	7596.1	9028.6	8999.5	8970.4	8101.6	8192.1	8157.9	8185.9	8276.9	7525.8
	9375.4	9388.6	9401.5	8542.6	8697.6	8721.5	7925.4	7929.5	6871.9	6234.1	6246.6	6259.1	6271.7
	6630.7	6645.0	6706.4	6727.4	6540.8	6733.5	8356.1	9863.4	6905.7	7293.6	6998.5	7392.5	7682.4
	9187.2	9046.9	9260.7	8591.6	12123.9	18629.0	23914.0	44171.0	43171.0	28700.0	14829.0	11137.0	12007.0
1960	10714.0	8763.4	8394.3	8516.7	9072.8	9030.6	9029.8	9025.4	8291.8	8264.2	8277.1	8290.0	8303.0
	9405.2	9419.7	9414.5	9424.1	8690.2	8699.3	8719.3	7922.3	6873.8	6882.0	6890.4	6249.5	6261.7
	7294.9	6632.6	6684.5	6703.9	6846.4	7038.6	7810.9	9333.7	7112.4	6000.0	6042.1	6543.1	6698.8
	8238.5	7560.4	8421.1	9214.2	9775.4	9007.4	16772.9	21714.0	20857.0	18314.0	28943.0	20514.0	17557.0
1961	12529.0	9100.0	8660.1	8468.1	9077.0	9056.8	9041.4	9016.9	8306.2	8333.8	8339.0	8312.6	8325.0
	9433.4	9449.1	9474.1	9494.9	8735.9	8707.9	8723.8	8739.4	6879.8	6881.6	6913.3	6974.6	6987.4
	7421.4	7435.0	7476.4	7493.9	7610.8	8210.6	9217.3	9073.8	6590.7	6935.7	8253.5	9093.5	8379.1
	8741.9	10903.4	25000.0	25900.0	25643.0	26000.0	22200.0	21071.0	15657.0	12429.0	14100.0	13429.0	15457.0
1962	10429.0	8451.1	8458.7	8466.5	9080.9	9003.1	9017.5	9031.9	8295.3	8259.1	8272.2	8285.3	8298.6
	9402.0	9416.9	9435.5	9455.2	8712.8	8709.6	8733.1	7942.8	6892.9	6900.4	6275.9	6287.5	6299.1
	7365.1	6701.0	6713.6	6726.3	6611.3	6705.5	7550.9	8173.1	7585.1	7761.3	11351.8	10372.6	8700.1
	23242.6	26543.0	23129.0	27186.0	26057.0	23000.0	23000.0	23000.0	23429.0	23571.0	14886.0	12057.0	13871.0

TABLE 23
Sheet 1 of 3

1963	9150.0	8716.0	8614.0	8558.9	9092.7	9004.0	9018.1	9032.3	8289.6	8238.2	8251.4	8264.8	8278.1
	9360.4	9373.7	9393.0	9412.7	8684.1	8698.8	8722.5	7933.0	6865.6	6848.5	6863.7	6239.5	6251.9
	7266.9	6605.0	6619.7	6634.5	6503.4	6592.3	8318.4	10235.7	8365.6	7720.8	7698.3	7679.8	7662.4
	9679.1	14045.7	38143.0	32571.0	27800.0	25143.0	21814.0	23071.0	19543.0	15143.0	13543.0	10829.0	10979.0
1964	8930.7	8773.3	8624.8	8463.7	9002.2	8984.5	8965.5	8936.0	8213.7	8211.2	8218.4	8195.0	8209.8
	9314.6	9331.3	9344.7	8486.8	8640.4	8665.5	7875.5	7890.7	6837.1	6204.4	6214.3	6218.2	6231.5
	6594.5	6609.5	6631.1	6647.2	6324.6	6357.1	6408.9	6605.6	7688.1	12729.7	10547.8	9566.8	8209.5
	8995.3	24130.3	24671.0	16929.0	19757.0	18729.0	15100.0	16100.0	13600.0	11354.0	9253.0	9304.0	9106.0
1965	8794.5	8898.7	8568.6	8445.8	9025.5	9011.6	9022.0	9072.8	8232.3	8171.8	8169.3	8172.4	8187.5
	9296.8	9315.3	9336.2	8482.1	8631.1	8650.4	7862.8	7883.9	6839.9	6219.4	6232.1	6244.7	6257.5
	6645.2	6659.1	6706.8	6715.2	6443.0	6821.1	7258.0	8072.6	8166.7	6852.0	6998.0	7317.9	8474.8
	9627.0	9628.8	9367.1	9815.7	22229.0	19671.0	30386.0	20371.0	12000.0	16192.0	20700.0	18943.0	25043.0
1966	15086.0	8873.7	8376.9	8310.3	8943.6	8952.0	8938.4	8943.5	8218.6	8218.6	8226.5	8233.4	8240.9
	9353.3	9370.5	9390.7	8535.4	8684.2	8702.2	7913.1	7933.0	6886.4	6262.5	6274.2	6286.0	6297.9
	6675.3	6688.4	6752.5	6773.2	6543.8	6647.6	7014.7	7734.0	6853.4	9700.1	8620.9	8005.8	7484.6
	8298.1	8184.2	8263.7	8522.7	12597.8	22914.0	18843.0	22829.0	18300.0	12886.0	12514.0	12371.0	10314.0
1967	8718.6	8464.5	8344.1	7473.2	8891.2	8893.2	8909.9	8098.5	8204.2	8210.6	8225.0	8239.4	7488.4
	9378.8	9398.4	8543.0	8562.5	8713.8	7918.2	7937.7	7957.4	6899.2	6261.9	6273.9	6286.0	6298.2
	6643.6	6657.7	6675.4	6708.3	6422.6	6780.5	8114.1	8842.4	7627.8	7353.0	8698.5	8027.1	7937.7
	8619.3	8591.6	9512.5	25419.0	27100.0	25043.0	54871.0	30600.0	20614.0	29071.0	17157.0	12471.0	10831.0
1968	8703.1	8578.2	8444.9	7850.2	9011.1	8978.1	8978.7	8983.7	8261.4	8266.6	8279.7	8283.2	8295.5
	9418.9	9437.2	9455.8	8595.6	8738.9	8761.3	7971.1	7989.3	6942.7	6955.7	6330.2	6340.6	6351.1
	7378.9	6707.2	6729.2	6755.1	6446.7	6533.0	7647.7	10550.5	7466.6	7780.1	8907.7	8940.3	7781.8
	9469.1	13632.3	25857.0	24986.0	22214.0	20143.0	16757.0	15143.0	13429.0	11271.0	11291.0	8000.0	8000.0
1969	7159.3	8434.3	7884.8	7544.2	8986.9	8937.6	8901.6	8068.9	8154.1	8153.9	8163.7	7408.9	7417.1
	9306.2	9327.0	8467.8	8492.7	7838.6	7860.1	7882.9	7909.2	6218.6	6235.2	6249.8	6268.0	6283.6
	6651.9	6685.7	6736.7	6817.7	6623.7	6915.6	7506.1	8436.3	6000.0	6000.0	6255.6	6412.7	6216.3
	7308.1	7703.1	7737.5	7389.3	7182.7	7273.0	8000.0	12000.0	12000.0	8000.0	8000.0	8000.0	8000.0
1970	5146.2	7777.4	7736.2	7630.9	8270.3	8260.2	8248.7	8256.9	7587.9	7603.3	7618.3	7637.3	7657.3
	8719.2	8746.0	8769.0	8794.9	8120.1	8146.7	8169.7	8198.1	6448.0	6465.2	6483.4	6504.8	6522.5
	6905.8	7879.9	13191.5	13637.7	12998.0	11121.2	6000.0	6424.8	6608.8	6462.9	6378.7	6267.3	7400.6
	8652.3	8182.3	8322.2	8187.7	8703.4	8279.5	8000.0	12000.0	12000.0	8000.0	8000.0	8000.0	8000.0
1971	5000.0	6617.4	7870.9	7797.4	8470.7	8459.7	8433.2	8402.8	7707.7	7702.9	7698.7	7692.0	7682.4
	8701.4	8704.2	8712.3	8718.6	8041.1	8056.0	8067.1	8089.3	6363.1	6372.8	6387.0	6402.5	6418.6
	6788.8	6811.6	6839.4	6871.1	6558.4	6621.0	6731.6	6972.8	6000.0	7103.5	9714.6	7653.3	8826.8
	8495.4	8514.3	8905.4	7764.2	8381.9	10637.1	10655.6	18147.4	19471.0	22857.0	14586.0	11029.0	10939.0
1972	8802.2	8715.1	8531.4	8434.7	9087.6	9061.7	9056.3	9049.9	8315.8	8309.4	8321.5	8311.0	8323.6
	9443.6	9438.8	9456.7	9474.7	8749.7	8755.1	8767.0	8789.1	6925.4	6935.7	6939.1	6952.4	6322.8
	7345.1	7360.7	6689.4	6709.7	6561.9	8981.3	8927.1	9737.3	9750.0	7519.7	9620.3	8990.9	10729.3
	25371.0	25357.0	22600.0	18429.0	20243.0	21729.0	19929.0	20600.0	13786.0	13186.0	18029.0	13286.0	8000.0
1973	7853.7	8440.7	8639.7	7715.0	9041.6	8991.7	8964.6	8440.3	8214.4	8212.7	8207.9	8218.8	7468.8
	9338.6	9355.2	9376.5	8521.8	8677.7	8540.5	7912.0	7932.3	6874.8	6238.3	6250.7	6263.3	6275.8
	6632.9	6647.2	6661.6	6682.2	6386.5	6539.1	7256.1	7628.7	6216.3	6695.4	8159.7	8893.2	7474.5
	8021.6	8078.8	7929.1	8051.9	7591.3	7955.8	8043.3	12000.0	14688.4	12814.0	8942.0	8000.0	8000.0
1974	7788.1	8451.4	8302.1	7474.0	8916.4	8902.5	8905.5	8079.5	8176.0	8176.9	8179.7	7424.5	7433.6
	9321.9	9343.5	8485.4	8508.2	7851.7	7869.3	7889.7	7907.2	6217.1	6230.1	6241.7	6250.9	6264.3
	6623.4	6642.1	6673.5	6744.8	6537.1	6982.6	7603.0	9241.9	7915.8	6589.5	6257.5	6122.8	6681.8
	7587.5	8029.8	7819.2	8309.9	7612.9	7709.0	8000.0	12000.0	12000.0	8000.0	8000.0	8000.0	8000.0
1975	6426.9	8557.9	8136.8	7427.4	8895.1	8911.6	8133.9	8114.1	8221.8	8226.6	8240.8	7490.5	7502.0
	9391.1	9401.1	8545.6	8565.7	8721.6	7932.2	7951.5	7964.9	6289.0	6283.9	6295.5	6307.1	6318.8
	6674.8	6689.7	6717.8	6761.7	6537.6	6983.0	7877.7	8731.8	7808.7	8892.7	7856.0	8616.4	8187.6
	9266.4	9511.5	23493.6	25929.0	24200.0	19486.0	18614.0	16429.0	14157.0	11743.0	19886.0	18629.0	17943.0

TABLE 23
Sheet 2 of 3

1976	10286.0	9071.0	8870.5	8488.9	9055.2	8958.9	8908.1	8882.4	8143.1	8143.7	8153.5	8164.0	8173.1
	9297.1	9317.7	9333.9	8931.5	8633.1	8658.4	7870.7	7891.5	6844.1	6217.5	6230.1	6242.8	6255.6
	6612.3	6631.8	6670.6	6770.4	6762.7	7746.2	7673.6	7727.9	6228.8	7487.7	8158.3	7151.1	7056.5
	7818.4	8387.6	8271.3	8309.2	8613.0	9267.1	13460.9	15800.0	12000.0	8000.0	8000.0	8000.0	8000.0
1977	5964.5	8389.1	7625.1	7584.8	9032.6	9020.7	9016.6	8187.2	8349.0	8341.0	8324.7	8315.1	7545.0
	9416.6	9428.9	9436.8	8576.0	8722.4	8737.8	7944.9	7963.9	6911.9	6919.7	6294.3	6305.7	6317.1
	7362.6	6697.7	6719.7	6741.1	6429.6	6602.2	7595.8	8315.4	7671.0	8280.5	9967.1	9007.6	8527.7
	8596.8	10456.6	25514.0	21229.0	22286.0	21329.0	19514.0	19729.0	12514.0	10363.0	14671.0	14071.0	13534.0
1978	8923.9	8938.1	8816.4	8595.2	9172.5	9109.5	9079.0	9063.8	8319.9	8308.4	8307.2	8309.9	8300.5
	9403.8	9406.9	9413.0	9422.1	8685.4	8690.8	8703.8	8726.2	6873.5	6887.0	6900.6	6914.3	6930.1
	7324.2	7339.8	7355.6	6702.1	6578.2	8203.3	8694.3	8067.8	6000.0	6117.2	6764.0	6860.5	7342.6
	8158.5	8554.2	8561.8	8500.1	8445.1	8305.5	8140.0	12000.0	12000.0	8000.0	8976.3	8000.0	8000.0
1979	7503.4	8623.5	8497.3	7616.2	9093.9	9056.7	8982.6	8965.8	8238.8	8244.4	8239.3	8233.8	7686.6
	9360.8	9373.8	9394.3	8539.1	8682.6	8706.8	7917.4	7937.3	6878.9	6254.9	6266.9	6278.9	6291.0
	6647.2	6667.0	6695.4	6747.3	6522.2	6792.3	7543.1	8312.5	7943.4	7455.8	7400.1	7130.0	7663.3
	9183.1	9129.1	9740.4	12438.9	26514.0	24800.0	20029.0	17057.0	15171.0	9447.0	9203.0	13543.0	12254.0
1980	8818.3	9085.7	8722.5	8521.4	9217.9	9177.9	9244.9	9099.0	8361.8	8303.5	8284.9	8273.4	8262.5
	9365.3	9374.7	9382.5	9391.2	8663.7	8673.3	8684.2	8701.1	6653.4	6867.4	6881.5	6895.7	6582.9
	7300.9	7317.3	7341.3	6735.7	6636.7	7250.7	8348.7	8175.2	6624.1	8281.9	7637.4	8447.7	7959.2
	9706.4	9730.2	25590.0	30143.0	33014.0	23200.0	21929.0	19886.0	14457.0	10570.0	11304.0	19000.0	14186.0
1981	9849.0	8918.2	8753.3	8613.5	9192.2	9152.6	9044.7	9064.3	8347.2	8258.9	8213.2	8215.0	8220.8
	9336.3	9384.0	9436.0	9472.9	8751.2	8776.0	8749.2	8726.6	6866.6	6880.4	6905.4	6922.2	6599.9
	7333.8	7356.5	7385.1	6781.9	6795.5	9058.4	9042.3	8248.9	6830.9	6901.2	6693.5	6824.5	7151.7
	8225.6	10917.7	11431.9	36700.0	38600.0	36157.0	46729.0	37029.0	24971.0	17986.0	14500.0	12100.0	11256.0
1982	8790.8	8744.0	8768.8	8903.5	9187.9	9123.1	9125.5	9068.7	8305.5	8283.9	8279.1	8282.3	8295.0
	9412.6	9430.0	9447.5	9465.1	8742.4	8762.4	8709.2	8679.1	6816.1	6830.8	6845.6	6867.6	6923.0
	7311.1	7327.1	7360.5	6755.7	6552.2	7074.6	8470.6	9018.4	6931.5	7744.8	7247.0	8008.7	7893.7
	8389.3	8889.3	8913.0	14329.0	23657.0	16629.0	14471.0	12629.0	14014.0	13486.0	16886.0	26557.0	16729.0
AVG	8940.3	8651.6	8448.3	8163.1	9016.6	8979.9	8925.6	8736.2	8219.2	8207.1	8210.1	8119.1	7993.9
	9325.0	9339.9	9223.4	8937.7	8574.8	8509.8	8212.1	8103.7	6743.1	6545.5	6452.8	6411.6	6386.6
	6960.9	6842.9	7015.0	6986.0	6835.4	7311.8	7771.9	8493.6	7090.6	7608.3	7972.6	7860.6	7784.2
	9651.4	10820.7	14162.2	15825.6	19231.8	18697.7	19268.9	19358.2	17761.9	15031.5	14041.1	13122.9	12326.6

TABLE 23
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POST-PROJECT FLOWS AT GOLD CREEK (CFS)

1950	12856.0	8578.6	8412.1	8376.2	9062.4	9035.5	8996.3	9006.4	8203.2	8217.0	8218.6	8202.0	8196.7
	9308.5	9326.0	9348.0	8430.9	8661.1	8671.7	7782.3	7797.5	6829.7	6151.5	6159.7	6178.8	6199.9
	6551.6	6567.8	6589.5	6621.8	6432.6	7062.0	7676.1	7721.1	6402.5	6297.6	6224.0	7267.2	6986.5
	7875.0	7999.2	8202.0	9048.8	8375.4	8768.7	8528.4	12000.0	12000.0	12000.0	8000.0	8000.0	8000.0
1951	6037.2	8471.6	8093.1	7406.2	8868.4	8876.6	7985.6	7991.8	8165.7	8173.0	8188.1	7372.9	7385.1
	9331.0	9350.3	8420.9	8444.5	7788.8	7800.7	7821.6	7842.7	6164.5	6172.1	6185.0	6198.0	6211.0
	6570.0	6608.4	6681.7	6817.1	6862.7	8080.7	8272.7	7189.7	6255.4	7656.6	6721.7	6341.1	6940.5
	7946.7	8331.5	8833.4	8604.4	7954.6	8143.0	8253.0	12000.0	21737.3	30057.0	18671.0	19286.0	18657.0
1952	9229.0	8626.3	8443.4	8339.7	9079.2	9058.2	8979.1	8991.2	8256.4	8237.3	8250.8	8264.3	8277.9
	9371.9	9386.9	9406.3	9427.0	8675.7	8662.2	7804.8	7825.1	6844.0	6582.8	6172.2	6184.7	6197.2
	6554.6	6568.8	6583.1	6597.4	6297.4	6345.4	6417.0	6690.5	6870.0	7165.6	8279.4	9077.3	8559.9
	9329.5	8413.2	9006.2	9219.5	20724.4	25071.0	19686.0	14943.0	17329.0	18886.0	12771.0	11029.0	15086.0
1953	11143.0	10390.0	8745.3	8528.8	9231.8	9158.4	8998.8	9081.8	8262.5	8193.3	8207.1	8220.9	8234.8
	9298.3	9308.1	9328.4	9348.9	8613.9	8617.0	8642.6	7785.8	6813.1	6828.6	6830.4	6165.6	6178.2
	7279.4	6559.0	6635.3	6757.3	7694.3	8673.7	8488.8	9688.8	6658.9	8726.1	7811.2	7230.3	7636.0
	8449.8	8213.9	8378.7	13976.1	25643.0	21857.0	17514.0	18029.0	21500.0	18786.0	17114.0	14271.0	12426.0
1954	8844.2	8691.5	8494.6	8389.0	8954.9	8955.3	8951.6	8951.3	8215.9	8197.7	8212.0	8226.4	8236.9
	9347.0	9363.3	9384.1	8453.9	8668.9	8675.1	7816.7	7837.1	6849.7	6157.1	6169.8	6182.6	6195.4
	6559.1	6573.5	6656.6	6681.2	6909.6	7514.0	8334.4	9329.0	6773.6	7183.2	7545.1	7413.3	7959.2
	8957.9	8383.7	8308.7	8293.7	15065.2	24000.0	24000.0	24000.0	23000.0	16286.0	14000.0	13057.0	9581.0
1955	8663.7	8624.5	8460.4	8468.2	9102.9	9037.7	9032.9	9010.4	8282.9	8271.6	8279.4	8264.2	8277.8
	9410.1	9430.0	9416.2	9424.8	8691.9	8702.7	7976.0	7864.1	6874.0	6869.7	6191.0	6202.9	6215.0
	7315.6	6593.9	6607.4	6621.1	6548.3	6658.3	6745.0	7891.6	6349.3	6652.6	8045.7	8825.4	8544.1
	10047.8	9388.7	8635.3	12093.9	22614.0	20900.0	21443.0	26071.0	37243.0	19671.0	15029.0	12214.0	10993.0
1956	8745.3	8535.1	8431.9	8089.2	8970.3	8941.8	8938.9	8030.7	8198.1	8180.3	8195.0	8209.8	7394.3
	9318.5	9334.0	9356.2	8426.9	8658.8	7800.6	7821.0	7841.5	6168.8	6179.6	6191.9	6204.3	6216.8
	6571.8	6586.0	6600.3	6614.7	6454.4	7430.7	7952.4	10396.4	6788.5	8566.4	9657.0	8339.4	7896.5
	9429.3	16487.7	32000.0	31229.0	31429.0	28771.0	26000.0	20729.0	17714.0	16000.0	22429.0	21857.0	16000.0
1957	8741.1	8744.2	8489.7	8453.5	9106.3	9056.2	9054.6	9049.6	8315.6	8287.6	8292.9	8257.2	8270.8
	9373.9	9389.1	9408.2	9428.0	8694.2	8704.1	8727.7	7868.1	6878.2	6874.1	6195.8	6207.5	6219.3
	7307.2	6586.3	6599.9	6613.5	6525.5	6788.3	7187.5	8455.7	7813.4	9006.9	8492.0	8053.4	7001.4
	8796.2	8567.0	8837.8	18122.2	20957.0	20943.0	20829.0	19100.0	21143.0	18914.0	20643.0	20071.0	22029.0
1958	10333.0	8927.0	8744.9	8772.8	9276.3	9182.4	9120.9	9055.2	8384.6	8475.2	8413.1	8318.7	8273.9
	9411.7	9395.3	9382.3	9390.0	8634.7	8649.6	8651.7	8661.2	6817.8	6832.2	6843.2	6850.2	6865.2
	7268.2	7300.7	7329.9	7380.0	6558.6	6969.7	8028.8	9111.2	6820.0	7953.9	7927.7	7478.0	7223.2
	8672.8	8654.4	8636.2	8569.9	33292.9	27529.0	20443.0	16571.0	12000.0	12000.0	8000.0	8000.0	8000.0
1959	5737.2	8535.6	8516.8	7534.5	9032.1	9003.0	8973.9	8033.9	8195.2	8161.1	8189.1	8280.0	7463.1
	9378.9	9392.2	9405.3	8471.2	8702.1	8148.0	7858.0	7861.7	6875.6	6180.9	6193.1	6205.4	6217.8
	6573.5	6587.6	6648.7	6669.4	6485.6	6678.1	8300.6	9863.5	6866.1	7254.2	6998.5	7392.5	7682.3
	9187.2	9046.8	9260.7	8591.5	12160.7	18629.0	23914.0	44171.0	43171.0	28700.0	14829.0	11137.0	12007.0
1960	10714.0	8763.4	8394.3	8516.7	9072.8	9030.6	9029.8	9025.4	8291.8	8264.2	8277.1	8290.0	8303.0
	9405.2	9419.7	9414.5	9424.1	8690.2	8699.3	8719.3	7852.6	6873.7	6881.8	6890.2	6194.5	6206.5
	7294.4	6573.9	6625.6	6644.6	6790.1	6982.2	7754.5	9332.6	7072.1	6000.0	6002.1	6542.1	6698.0
	8166.9	7509.0	8420.1	9213.2	9774.6	9006.5	17489.7	21714.0	20857.0	18314.0	28943.0	20514.0	17557.0
1961	12529.0	9100.0	8660.1	8468.1	9077.0	9056.8	9041.4	9016.9	8306.2	8333.8	8339.0	8312.6	8325.0
	9433.4	9449.1	9474.1	9494.9	8735.9	8707.9	8723.8	8739.4	6879.8	6881.6	6913.3	6974.6	6987.4
	7421.4	7435.0	7476.4	7493.9	7610.8	8210.6	9217.3	9073.8	6551.5	6935.7	8253.4	9093.5	8379.1
	8741.8	10942.8	25000.0	25900.0	25643.0	26000.0	22200.0	21071.0	15657.0	12429.0	14100.0	13429.0	15457.0
1962	10429.0	8451.1	8458.7	8466.5	9080.9	9003.1	9017.5	9031.9	8295.3	8259.1	8272.2	8285.3	8298.6
	9402.0	9416.9	9435.5	9455.2	8712.8	8709.6	8733.1	7873.1	6892.7	6900.2	6221.0	6232.3	6243.7
	7364.4	6642.1	6654.5	6666.9	6554.8	6648.9	7494.2	8116.5	7544.7	7721.1	11351.4	10372.1	8699.5
	23964.4	26543.0	23129.0	27186.0	26057.0	23000.0	23000.0	23000.0	23429.0	23571.0	14886.0	12057.0	13871.0

TABLE 24
Sheet 1 of 3

1963	9150.0	8716.0	8619.0	8558.9	9092.7	9004.0	9018.1	9032.3	8289.6	8238.2	8251.4	8264.8	8278.1
	9360.4	9373.7	9393.0	9412.7	8684.1	8698.8	8722.5	7863.3	6865.4	6848.3	6863.5	6184.5	6196.7
	7266.4	6546.5	6560.7	6575.2	6447.0	6535.7	8261.9	10234.6	8325.6	7720.0	7697.7	7679.3	7661.9
	9678.4	14617.3	38143.0	32571.0	27800.0	25143.0	21814.0	23071.0	19543.0	15143.0	13543.0	10829.0	10979.0
1964	8930.7	8773.3	8624.6	8463.7	9002.2	8904.5	8965.5	8936.0	8213.7	8211.2	8218.4	8195.0	8209.8
	9314.6	9331.3	9344.7	8411.7	8640.1	8665.3	7805.6	7820.4	6836.5	6149.2	6158.8	6162.5	6175.6
	6535.2	6549.9	6571.2	6587.0	6267.3	6299.5	6351.0	6547.5	7646.7	12689.7	10547.1	9566.1	8208.7
	8994.0	25124.1	24671.0	16929.0	19757.0	18729.0	15100.0	16100.0	13600.0	12000.0	8607.0	9304.0	9106.0
1965	8794.5	8898.7	8568.6	8445.8	9025.5	9011.6	9022.0	9072.8	8232.3	8171.8	8169.3	8172.4	8187.5
	9296.8	9315.3	9336.2	8407.0	8630.9	8650.2	7792.9	7813.6	6839.4	6164.2	6176.6	6189.0	6201.5
	6585.8	6599.4	6646.9	6665.0	6385.7	6763.7	7200.5	8015.2	8125.9	6811.3	7009.4	7316.5	8473.9
	9625.7	9627.6	9365.8	10875.4	22229.0	19671.0	30386.0	20371.0	12000.0	16192.0	20700.0	18943.0	25043.0
1966	15086.0	8873.7	8376.9	8310.3	8993.6	8952.0	8938.4	8943.5	8218.6	8218.8	8226.5	8233.4	8240.9
	9353.3	9370.5	9390.7	8460.3	8684.0	8701.9	7843.2	7862.7	6885.9	6207.3	6218.8	6230.3	6242.0
	6616.0	6628.8	6692.7	6713.1	6486.6	6590.2	6957.2	7676.5	6812.3	9659.8	8619.7	8004.9	7483.6
	8296.7	8182.8	8262.3	8521.3	13594.9	22914.0	18843.0	22829.0	18300.0	12886.0	12514.0	12371.0	10314.0
1967	8718.6	8464.5	8344.1	7408.7	8891.0	8893.1	8909.8	8027.3	8203.9	8210.3	8224.7	8239.1	7422.6
	9378.3	9397.9	8467.3	8486.3	8712.6	7847.5	7866.6	7886.0	6897.6	6205.8	6217.5	6229.4	6241.3
	6583.3	6597.1	6614.5	6647.1	6364.4	6722.1	8055.9	8784.6	7586.6	7312.0	8696.9	8025.7	7936.5
	8617.4	8589.7	9510.8	26784.7	27100.0	25043.0	54871.0	30600.0	20614.0	29071.0	17157.0	12471.0	10831.0
1968	8703.1	8578.2	8444.9	7850.2	9011.1	8978.1	8978.7	8983.7	8261.4	8266.6	8279.7	8283.2	8295.5
	9418.9	9437.2	9455.8	8520.5	8738.6	8761.1	7901.3	7919.1	6942.2	6955.2	6275.0	6285.2	6295.4
	7377.8	6985.5	6670.6	6696.2	6390.8	6476.8	7591.5	10549.7	7426.6	7779.5	8907.3	8940.0	7781.4
	9468.5	14067.0	25857.0	24986.0	22214.0	20143.0	16757.0	15143.0	13429.0	12000.0	10562.0	8000.0	8000.0
1969	7159.3	8434.3	7884.8	7479.6	8986.8	8937.5	8901.2	7997.8	8153.8	8153.6	8163.4	7343.1	7351.1
	9305.5	9326.3	8391.8	8416.1	7767.7	7788.9	7811.2	7837.1	6162.1	6178.4	6192.8	6210.7	6226.0
	6590.9	6624.3	6675.1	6755.8	6564.8	6856.7	7447.2	8377.6	6000.0	6000.0	6213.6	6370.9	6174.6
	7253.4	7648.7	7683.2	7335.3	7129.0	7219.7	8000.0	12000.0	12000.0	12000.0	8000.0	8000.0	8000.0
1970	5000.0	7040.3	7674.8	7570.1	8203.6	8193.2	8181.2	8189.1	7525.4	7540.4	7555.2	7573.7	7593.5
	8546.1	8672.4	8695.0	8720.4	8051.4	8077.9	8100.5	8128.2	6393.2	6410.1	6428.0	6449.1	6466.5
	6846.2	8149.5	13091.9	13532.3	12890.4	10838.9	6000.0	6417.9	6567.2	6421.6	6337.5	6226.1	7359.7
	8599.1	8129.3	8269.3	8135.0	8651.0	8227.3	8000.0	12000.0	12000.0	12000.0	8000.0	8000.0	8000.0
1971	5000.0	7929.0	7804.1	7730.4	8397.3	8385.8	8358.9	8327.6	7638.5	7633.4	7628.8	7621.8	7611.8
	8620.5	8622.9	8630.5	8636.2	7964.9	7979.3	7990.0	8011.7	6302.3	6311.7	6325.1	6339.8	6355.6
	6721.9	6744.3	6771.7	6802.9	6493.5	6555.7	6665.9	6906.9	6000.0	7057.6	9671.0	7609.4	8784.0
	8438.3	8457.5	8849.1	7708.9	8327.4	10583.7	10651.8	21495.6	19471.0	22857.0	14586.0	11029.0	10939.0
1972	8802.2	8715.1	8531.4	8434.7	9067.6	9061.7	9056.3	9049.9	8315.8	8309.4	8321.5	8311.0	8323.6
	9443.6	9438.8	9456.7	9474.7	8749.7	8755.1	8767.0	8789.1	6925.4	6935.7	6939.1	6952.4	6268.0
	7344.9	7360.5	6631.0	6651.1	6506.1	8980.8	8926.5	9736.8	9749.8	7519.4	9620.2	8990.7	10959.5
	25371.0	25357.0	22600.0	18429.0	20243.0	21729.0	19929.0	20600.0	13786.0	13186.0	18029.0	13286.0	8000.0
1973	7853.7	8440.7	8639.7	7650.5	9041.5	8991.5	8964.5	8505.2	8214.4	8212.7	8207.9	8218.8	7403.3
	9338.4	9355.0	9376.3	8446.4	8677.2	8682.4	7842.3	7862.1	6874.5	6183.2	6195.4	6207.6	6220.0
	6573.6	6587.7	6601.8	6622.1	6329.3	6481.7	7198.6	7571.2	6175.0	6654.3	8119.1	8892.1	7473.5
	7969.7	8490.8	7928.2	8051.1	7540.4	7932.6	8042.8	12000.0	15300.3	12814.0	8942.0	8000.0	8000.0
1974	7788.1	8451.4	8302.1	7409.5	8916.2	8902.3	8905.7	8008.4	8175.7	8176.6	8179.4	7358.7	7367.6
	9321.3	9342.7	8409.4	8431.6	7788.3	7798.1	7818.0	7835.1	6160.6	6173.4	6184.7	6193.6	6206.7
	6562.3	6580.8	6611.8	6682.9	6478.2	6923.6	7544.0	9183.6	7874.3	6547.9	6215.9	6081.3	6679.6
	7534.0	7976.7	7766.4	8307.3	7560.3	7656.5	8000.0	12000.0	12000.0	12000.0	8000.0	8000.0	8000.0
1975	5323.9	8559.8	7462.9	7363.3	8895.5	8912.0	8030.2	8043.3	8221.9	8226.6	8240.8	7425.0	7436.3
	9390.8	9400.8	8470.2	8489.8	8720.7	7861.8	7880.7	7893.7	6761.6	6229.1	6240.4	6251.8	6263.3
	6616.0	6630.6	6658.3	6702.0	6480.9	6926.1	7820.8	8675.2	7768.2	8891.8	7855.2	8615.8	8187.0
	9265.4	9510.6	24223.7	25929.0	24200.0	19486.0	18614.0	16429.0	14157.0	12000.0	19629.0	18629.0	17943.0

TABLE 24
Sheet 2 of 3

1976	10286.0	9071.0	8870.5	8488.9	9055.2	8958.9	8908.1	8882.4	8145.1	8143.7	8153.5	8164.0	8173.1
	9297.1	9317.7	9533.9	8931.5	8633.1	8658.4	7801.0	7821.5	6843.7	6162.5	6174.9	6187.3	6199.8
	6553.1	6572.4	6610.9	6710.4	6705.7	7669.2	7616.6	7671.0	6187.9	7447.1	8157.1	7150.0	7055.4
	7766.7	8386.2	8270.0	8307.8	8611.7	9265.8	14432.0	15800.0	12000.0	12000.0	8000.0	8000.0	8000.0
1977	5000.0	7205.3	7564.0	7523.5	9056.6	9024.7	9020.6	8119.8	6352.5	8344.5	8328.3	8318.7	7482.7
	9420.6	9433.0	9441.2	8505.2	8727.6	8742.9	7879.9	7898.6	6915.7	6230.3	6241.3	6252.4	6263.6
	6898.6	6639.8	6661.5	6682.6	6373.9	6546.4	7539.8	8259.5	7630.9	8240.8	9966.8	9007.4	8527.4
	8596.4	10797.6	25514.0	21229.0	22286.0	21329.0	19514.0	19729.0	12514.0	12000.0	13034.0	14071.0	13534.0
1978	8923.9	8938.1	8816.4	8595.2	9172.5	9109.5	9079.0	9063.8	8319.9	8308.4	8307.2	8309.9	8300.5
	9403.8	9406.9	9413.0	9422.1	8685.4	8690.8	8703.8	8726.2	6873.5	6887.0	6900.6	6914.3	6930.1
	7324.2	7339.8	7355.6	6643.8	6522.8	8203.0	8694.1	8067.5	6000.0	6077.6	6724.5	6860.2	7342.4
	8107.6	8553.9	8561.5	8499.8	8445.2	8305.2	8139.7	12000.0	12000.0	12000.0	8000.0	8000.0	8000.0
1979	6000.1	8626.1	8499.8	7554.1	9096.6	9059.5	8985.4	8136.5	8239.6	8245.2	8240.2	8234.7	7412.9
	9361.1	9374.1	9394.6	8464.2	8682.7	8706.9	7847.8	7867.3	6878.7	6200.0	6211.7	6223.5	6235.4
	6588.1	6607.7	6635.8	6687.4	6465.2	6735.3	7486.0	8255.5	7902.7	7415.4	7398.9	7129.0	7662.4
	9182.2	9127.9	9739.3	13301.0	26514.0	24800.0	20029.0	17057.0	15171.0	12000.0	8000.0	12193.0	12254.0
1980	8818.3	9085.7	8722.5	8521.4	9217.9	9177.9	9244.9	9099.0	8361.8	8303.5	8284.9	8273.4	8262.5
	9365.3	9374.7	9382.5	9391.2	8663.7	8673.3	8684.2	8701.1	6853.4	6867.4	6881.5	6895.7	6582.9
	7300.9	7317.3	7341.3	6677.4	6581.3	7195.2	8348.3	8174.8	6584.3	8422.4	7637.3	8447.7	7959.1
	9706.3	9730.1	25659.7	30143.0	33014.0	23200.0	21929.0	19886.0	14457.0	12000.0	9874.0	19000.0	14186.0
1981	9849.0	8918.2	8753.3	8613.5	9192.2	9152.6	9044.7	9064.3	8347.2	8258.9	8213.2	8215.0	8220.8
	9336.3	9384.0	9436.0	9472.9	8751.2	8776.0	8749.2	8726.6	6866.6	6880.4	6905.4	6922.2	6599.9
	7333.8	7356.5	7385.1	6723.6	6740.1	9058.1	9042.0	8248.7	6791.4	6901.0	6693.3	6624.3	7151.5
	8225.4	10917.5	11586.9	36700.0	38600.0	36157.0	46729.0	37029.0	24971.0	17986.0	14500.0	12100.0	11256.0
1982	8790.8	8744.0	8768.8	8903.5	9187.9	9123.1	9125.5	9068.7	8305.5	8283.9	8279.1	8282.3	8295.0
	9412.6	9430.0	9447.5	9465.1	8742.4	8762.4	8709.2	8679.1	6816.1	6830.8	6845.6	6867.6	6923.0
	7311.1	7327.1	7360.5	6697.4	6496.8	7019.0	8470.2	9018.0	6891.8	7744.5	7246.7	8008.5	7893.5
	8389.0	8889.0	8912.8	14540.5	23657.0	16629.0	14471.0	12629.0	14014.0	13486.0	16886.0	26557.0	16729.0
AVG	8726.7	8633.4	8412.7	8142.0	9012.7	8976.0	8901.8	8691.8	8215.4	8203.3	8206.3	8107.3	7963.8
	9320.5	9335.3	9207.5	8896.5	8564.4	8479.6	8169.6	8048.3	6747.1	6500.1	6416.2	6367.6	6340.8
	6914.0	6816.0	6964.8	6928.3	6778.7	7256.4	7729.9	8461.6	7055.0	7588.9	7958.9	7853.7	7786.7
	9655.7	10929.2	14182.5	15979.8	19303.0	18690.4	19319.8	19459.6	17823.3	16098.0	13817.5	13082.0	12326.6

TABLE 24
Sheet 3 of 3

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

1950	12856.0	8578.6	8412.1	8376.2	9062.4	9035.5	8996.5	9006.4	8205.2	8217.0	8216.6	8202.0	8196.7
	9308.5	9326.0	9348.0	8452.8	8661.2	8671.7	7802.7	7818.0	6629.6	6167.6	6175.9	6195.1	6216.5
	6569.0	6585.2	6607.0	6639.3	6449.4	7078.8	7692.8	7737.9	6414.6	6309.6	6235.9	7279.1	6987.0
	7890.5	8014.4	8217.2	9049.3	8390.4	8769.2	8528.9	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1951	5000.0	7964.2	7616.1	7426.7	8870.4	8878.6	8008.1	8014.4	8167.6	8174.9	8190.1	7393.8	7406.1
	9333.4	9352.9	8445.5	8469.7	7812.2	7824.2	7845.2	7866.5	6183.1	6190.8	6203.8	6216.8	6230.0
	6590.1	6628.7	6702.0	6837.5	6681.9	8099.7	8291.6	7208.8	6269.0	7669.8	6735.0	6545.3	6942.6
	7963.5	8347.9	8835.8	8606.4	7970.9	8145.1	8255.0	20000.0	20000.0	22329.6	18671.0	19286.0	18657.0
1952	9229.0	8626.3	8443.4	8339.7	9079.2	9058.2	8979.1	8991.2	8256.4	8237.3	8250.8	8264.3	8277.9
	9371.9	9386.9	9406.3	9427.0	8675.7	8662.2	7825.2	7845.6	6844.1	6542.0	6188.2	6200.7	6213.4
	6571.7	6586.0	6600.3	6614.8	6313.9	6362.0	6433.6	6707.2	6882.0	7177.5	8291.1	9077.5	8560.2
	9329.8	8413.5	9006.5	9219.8	20505.5	25071.0	19686.0	20000.0	20000.0	11158.0	12771.0	11029.0	15086.0
1953	11143.0	10390.0	8745.3	8528.8	9231.8	9158.4	8998.8	9081.8	8262.5	8193.3	8207.1	8220.9	8234.8
	9298.3	9308.1	9328.4	9348.9	8613.9	8617.0	8642.6	7806.1	6813.1	6828.7	6810.0	6181.6	6194.3
	7279.5	6576.1	6652.5	6774.6	7710.6	8673.9	8489.0	9689.0	6670.5	8726.2	7811.3	7230.4	7636.1
	8450.0	8214.1	8378.9	13863.0	25643.0	21857.0	17514.0	20000.0	20000.0	18315.0	17114.0	14271.0	12426.0
1954	8844.2	8691.5	8494.6	8389.0	8954.9	8955.3	8951.6	8951.3	8215.9	8197.7	8212.0	8226.4	8236.9
	9347.0	9363.3	9384.1	8475.8	8668.9	8675.2	7837.1	7857.6	6849.9	6173.3	6186.0	6198.8	6211.7
	6576.5	6590.9	6674.1	6698.8	6926.3	7530.7	8351.0	9329.6	6785.5	7195.0	7545.5	7413.6	7959.5
	8958.2	8384.1	8309.0	8294.1	14790.6	24000.0	24000.0	24000.0	23000.0	16286.0	14000.0	13057.0	9581.0
1955	8663.7	8624.5	8460.4	8468.2	9102.9	9037.7	9032.9	9010.4	8282.9	8271.6	8279.4	8264.2	8277.8
	9410.1	9430.0	9416.2	9424.8	8691.9	8702.7	7976.0	7884.5	6874.1	6869.8	6207.0	6219.0	6231.1
	7315.8	6611.0	6624.7	6638.4	6564.8	6674.8	6761.6	7908.2	6361.2	6664.4	8057.5	8825.7	8544.3
	10048.1	9389.0	8635.6	11870.2	12614.0	20900.0	21443.0	26071.0	37245.0	19671.0	15029.0	12214.0	10993.0
1956	8745.3	8535.1	8431.9	8089.2	8970.3	8941.8	8938.9	8051.4	8198.2	8180.3	8195.1	8209.9	7413.4
	9318.6	9334.1	9356.3	8449.0	8659.0	7821.1	7841.6	7862.3	6185.1	6195.9	6208.3	6220.8	6233.4
	6589.3	6603.6	6618.0	6632.5	6471.3	7447.6	7969.3	10397.1	6800.5	8566.8	9657.3	8339.7	7896.8
	9429.7	16145.5	32000.0	31229.0	31429.0	28771.0	26000.0	20729.0	20000.0	13714.0	22429.0	21857.0	16000.0
1957	8741.1	8744.2	8489.7	8453.5	9106.3	9056.2	9054.6	9049.6	8315.6	8287.6	8292.9	8257.2	8270.8
	9373.9	9389.1	9408.2	9428.0	8694.2	8704.1	8727.7	7888.4	6878.3	6874.2	6211.8	6223.6	6235.4
	7307.4	6603.5	6617.1	6630.8	6542.0	6804.8	7204.1	8472.2	7825.2	9007.1	8492.2	8053.6	7001.6
	8796.5	8567.2	8838.1	17922.3	20957.0	20943.0	20829.0	20000.0	20243.0	18914.0	20643.0	20071.0	22029.0
1958	10333.0	8927.0	8744.9	8772.8	9276.3	9182.4	9120.9	9055.2	8384.6	8475.2	8413.1	8318.7	8273.9
	9411.7	9395.3	9382.3	9390.0	8634.7	8649.6	8651.7	8661.2	6817.8	6832.2	6843.2	6850.2	6865.2
	7268.2	7300.7	7329.9	7380.1	6574.7	7005.9	8028.9	9111.3	6631.6	7954.0	7927.7	7478.0	7223.2
	8672.8	8654.5	8636.2	8569.1	33248.5	27529.0	20443.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1959	5000.0	8465.2	8518.2	7554.1	9033.7	9004.7	8975.5	8056.0	8196.8	8162.7	8190.7	8281.6	7483.7
	9380.8	9394.1	9407.4	8495.1	10704.7	7866.7	7879.9	7883.7	6875.1	6198.2	6210.5	6222.9	6235.3
	6592.1	6606.2	6667.4	6688.1	6503.5	6696.1	8518.4	9865.2	6878.6	7266.6	6999.6	7393.6	7683.2
	9188.2	9047.9	9261.7	8592.1	11371.0	18629.0	23914.0	44171.0	43171.0	28700.0	14829.0	11137.0	12007.0
1960	10714.0	8763.4	8394.3	8516.1	9072.8	9030.6	9029.8	9025.4	8291.8	8264.2	8277.1	8290.0	8303.0
	9405.2	9419.7	9414.5	9424.1	8690.2	8699.3	8719.3	7872.9	6873.7	6881.9	6890.2	6210.5	6222.6
	7294.6	6591.0	6642.7	6661.9	6806.5	6998.6	7771.0	9332.9	7083.9	6000.0	6013.8	6542.4	6698.2
	8201.9	7524.0	8420.4	9213.5	9774.8	9006.7	17280.7	21714.0	20657.0	18314.0	28943.0	20514.0	17557.0
1961	12529.0	9100.0	8660.1	8468.1	9077.0	9056.8	9041.4	9016.9	8306.2	8333.8	8339.0	8312.6	8325.0
	9433.4	9449.1	9474.1	9494.9	8735.9	8707.9	8723.8	8739.4	6879.8	6881.9	6913.3	6974.6	6987.4
	7421.4	7435.0	7476.4	7493.9	7610.8	8210.6	9217.3	9073.8	6562.9	6935.7	8253.4	9093.5	8379.1
	8748.8	10931.3	25000.0	25900.0	25643.0	26000.0	22200.0	21071.9	20000.0	8086.0	14100.0	13429.0	15457.0
1962	10429.0	8451.1	8458.7	8466.5	9080.9	9003.1	9017.5	9031.9	8295.3	8259.1	8272.2	8285.3	8298.6
	9402.0	9416.9	9435.5	9455.2	8712.8	8709.6	8733.1	7893.4	6892.8	6900.2	6237.1	6248.4	6259.8
	7364.6	6659.3	6671.7	6684.3	6571.3	6665.4	7510.8	8133.0	7556.5	7732.8	11351.5	10372.2	8699.7
	23753.9	26543.0	23129.0	27186.0	26057.0	23000.0	23000.0	23000.0	23429.0	23571.0	14886.0	12057.0	13871.0

TABLE 25
Sheet 1 of 3

1963	9150.0	8716.0	8619.0	8558.9	9092.7	9004.0	9018.1	9032.3	8289.6	8238.2	8251.4	8264.8	8276.1
	9360.4	9373.7	9393.0	9412.7	8684.1	8698.8	8722.5	7883.6	6865.4	6848.3	6863.5	6200.5	6212.8
	7266.5	6563.5	6577.9	6592.5	6463.5	6552.2	8278.3	10234.9	8337.3	7720.2	7697.9	7679.4	7662.1
	9678.6	14450.6	38143.0	32571.0	27800.0	25143.0	21814.0	23071.0	20000.0	14686.0	13545.0	10829.0	10979.0
1964	8930.7	8773.3	8628.8	8463.7	9002.2	8984.5	8965.5	8936.0	8213.7	8211.2	8218.4	8195.0	8209.8
	9314.6	9331.3	9344.7	8433.6	8640.2	8665.3	7826.0	7840.9	6836.7	6165.3	6175.0	6178.8	6191.9
	6552.5	6567.3	6588.7	6604.5	6284.0	6316.3	6561.9	6564.4	7658.7	12701.3	10547.3	9566.3	8208.9
	8994.4	24834.2	24671.0	16929.0	19757.0	18729.0	15100.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1965	7017.1	8901.6	8571.7	8448.8	9028.9	9015.0	9025.5	9076.3	8235.5	8175.0	8172.6	8175.7	8190.8
	9300.6	9319.2	9340.4	8432.6	8636.1	8655.4	7816.0	7838.9	6843.6	6184.0	6196.5	6209.0	6221.7
	6607.2	6620.9	6668.8	6686.1	6406.3	6784.2	7221.0	8035.4	8139.6	6825.3	6471.4	7519.2	8475.7
	9628.1	9630.0	9368.2	8978.9	22229.0	19671.0	30386.0	20371.0	20000.0	8192.0	20700.0	18943.0	25043.0
1966	15086.0	8873.7	8376.9	8310.1	8493.6	8952.0	8938.4	8943.5	8218.6	8218.8	8220.5	8233.4	8240.9
	9353.3	9370.5	9390.7	8482.6	8684.1	8702.0	7863.6	7883.2	6886.0	6223.4	6235.0	6246.6	6258.3
	6633.3	6646.2	6710.1	6730.7	6503.3	6606.9	6974.0	7693.3	6824.3	9671.5	8620.1	8005.1	7483.9
	8297.1	8183.2	8262.7	8521.7	13304.1	22914.0	18843.0	22829.0	20000.0	11186.0	12514.0	12371.0	10314.0
1967	8718.6	8464.5	8340.1	7421.5	8891.1	8893.1	8909.8	8048.1	8204.0	8210.4	8224.8	8239.2	7441.8
	9378.4	9398.0	8489.4	8501.5	8712.9	7868.1	7887.4	7906.8	6898.0	6222.2	6234.0	6245.9	6257.9
	6600.9	6614.8	6632.3	6661.9	6381.4	6739.1	8072.9	8801.4	7598.6	7323.9	8697.4	8026.1	7436.8
	8617.9	8590.2	9511.3	26386.5	27100.0	25043.0	54871.0	30600.0	20614.0	29071.0	17157.0	12471.0	10831.0
1968	8703.1	8578.2	8444.9	7852.2	9011.1	8978.1	8978.7	8983.7	8261.4	8266.6	8279.7	8283.2	8295.5
	9418.9	9437.2	9455.8	8542.4	8738.7	8761.1	7921.7	7939.6	6942.3	6955.3	6291.1	6301.3	6311.6
	7378.1	6873.5	6687.6	6713.3	6407.0	6493.1	7607.8	10549.8	7438.3	7779.7	8907.4	8940.1	7781.4
	9468.6	13971.7	25857.0	24986.0	22214.0	20143.0	16757.0	20000.0	20000.0	8000.0	8848.0	8000.0	8000.0
1969	7159.3	8438.3	7884.8	7498.4	8986.8	8937.5	8901.5	8018.5	8153.9	8153.7	8163.5	7362.3	7370.4
	9305.7	9326.5	8413.9	8438.4	7788.4	7809.6	7832.1	7858.1	6178.6	6195.0	6209.4	6227.4	6242.8
	6608.7	6682.2	6693.0	6773.8	6582.0	6873.9	7464.4	8594.7	6000.0	6000.0	6225.8	6383.1	6186.7
	7269.4	7664.5	7699.0	7391.0	7144.7	7235.2	8000.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1970	5000.0	6807.0	7692.7	7517.8	8223.0	8212.7	8200.9	8208.9	7543.6	7558.7	7573.6	7592.2	7612.1
	8667.4	8693.9	8716.5	8712.1	8071.4	8097.9	8120.5	8148.6	6409.2	6426.1	6444.1	6465.3	6482.8
	6863.6	8059.7	13120.0	13591.8	12920.2	10964.3	6000.0	6417.9	6579.3	6433.6	6349.5	6238.1	7371.7
	8614.7	8144.8	8284.8	8118.4	8666.3	8242.6	8000.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1971	5000.0	7901.8	7822.3	7738.6	8417.3	8405.8	8378.8	8347.4	7656.7	7651.7	7647.2	7640.2	7630.3
	8641.8	8644.3	8652.0	8651.9	7984.9	7999.5	8010.3	8032.1	6318.3	6327.8	6341.2	6356.0	6371.8
	6739.1	6761.6	6789.1	6821.4	6510.2	6572.5	6682.8	6923.9	6000.0	7069.8	9683.0	7621.3	8795.8
	8453.6	8472.7	8864.3	7721.0	8342.3	10598.6	10652.0	21280.7	20000.0	22328.0	14586.0	11029.0	10939.0
1972	8802.2	8715.1	8531.4	8434.7	9087.6	9061.7	9056.3	9049.9	8315.8	8309.4	8321.5	8311.0	8323.6
	9443.6	9438.8	9456.7	9474.7	8749.7	8755.1	8767.0	8789.1	6925.4	6935.7	6939.1	6952.4	6284.0
	7384.9	7360.6	6648.0	6666.2	6522.4	8981.0	8926.7	9736.9	9749.8	7519.5	9620.2	8990.8	10892.3
	25371.0	25357.0	22600.0	18429.0	20243.0	21729.0	19920.0	20600.0	20000.0	8000.0	17001.0	13286.0	8000.0
1973	7853.7	8440.7	8639.7	7169.3	9041.5	8991.6	8964.5	8486.3	8214.4	8212.7	8207.9	8218.8	7422.4
	9338.5	9355.1	9376.4	8168.3	8677.4	8641.0	7862.6	7882.6	6874.6	6199.2	6211.5	6223.9	6236.3
	6590.9	6605.0	6619.3	6159.5	6546.0	6498.4	7215.4	7587.9	6187.0	6660.3	8130.9	8092.4	7473.8
	7984.8	8491.2	7928.7	8151.5	7555.4	7919.9	8043.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1974	7402.3	8452.0	8303.4	7128.9	8917.0	8903.1	8875.8	8029.4	8176.0	8176.9	8179.7	7378.1	7387.0
	9321.7	9343.2	8431.8	8454.2	7801.8	7819.2	7839.2	7856.5	6177.3	6190.1	6201.6	6210.6	6223.8
	6580.4	6598.9	6630.1	6711.2	6495.6	6941.1	7561.5	9200.8	7886.5	6560.2	6628.2	6093.5	6680.1
	7549.8	7992.4	7781.9	8308.2	7575.8	7671.9	8000.0	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1975	6787.3	8557.3	8278.3	7381.3	8894.6	8911.1	8345.8	8063.8	8221.7	8226.5	8240.7	7444.0	7455.3
	9390.8	9400.7	8492.0	8511.7	8720.8	7882.1	7901.1	7914.2	6693.1	6245.1	6256.5	6267.9	6279.5
	6633.1	6647.8	6675.7	6719.4	6497.4	6942.7	7837.4	8691.7	7780.0	8892.1	7855.4	8615.9	8187.2
	9265.7	9510.9	24010.8	25919.0	24200.0	19486.0	18614.0	20000.0	20000.0	8000.0	14215.0	18629.0	17943.0

TABLE 25
Sheet 2 of 3

1976	10286.0	9071.0	8870.5	8418.9	9055.2	8958.9	8908.1	8882.4	8143.1	8143.7	8153.5	8164.0	8173.1
	9297.1	9317.7	9333.9	8971.5	8633.1	8658.4	7821.4	7841.9	6843.8	6178.6	6191.0	6203.5	6216.1
	6570.4	6589.7	6628.3	6727.9	6722.4	7705.8	7633.2	7687.6	6199.9	7459.0	8157.5	7150.3	7055.7
	7781.8	8386.6	8270.4	8308.2	8612.1	9266.2	14148.8	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1977	5000.0	6303.9	7584.3	7543.8	9038.5	9026.6	8726.8	8141.7	8353.7	8345.7	8329.5	8319.9	7502.9
	9422.1	9434.4	9442.8	9528.7	8729.6	8745.0	7902.1	7920.9	6917.4	6247.8	6258.9	6270.1	6281.4
	6645.3	6658.0	6679.8	6701.0	6391.4	6563.9	7557.3	8276.9	7643.3	8252.9	9967.3	9007.9	8527.9
	8597.2	10160.7	25514.0	21229.0	22286.0	21329.0	19514.0	20000.0	20000.0	8000.0	9277.0	14071.0	13534.0
1978	8923.9	8938.1	8816.4	8595.2	9172.5	9109.5	9079.0	9063.8	8319.9	8308.4	8307.2	8309.9	8300.5
	9403.8	9406.9	9413.0	9422.1	8685.4	8690.8	8703.8	8726.2	6873.5	6887.0	6900.6	6914.3	6930.1
	7324.2	7339.8	7355.6	6660.8	6538.9	8203.1	8694.1	8067.6	6000.0	6089.1	6736.0	6860.2	7342.5
	8122.5	8554.0	8561.6	8499.9	8445.2	8305.2	8139.8	20000.0	20000.0	8000.0	8000.0	8000.0	8000.0
1979	6394.5	8625.4	8499.2	7572.3	9095.9	9058.8	8984.7	8456.1	8239.6	8245.2	8240.2	8234.7	7432.0
	9361.2	9374.2	9394.7	8486.2	8682.9	8707.1	7868.2	7887.9	6878.9	6216.1	6227.9	6239.8	6251.7
	6605.5	6625.2	6653.4	6705.0	6482.0	6752.0	7502.8	8272.3	7914.7	7427.2	7399.3	7129.4	7662.7
	9182.4	9128.3	9739.7	12890.4	26514.0	24800.0	20029.0	20000.0	20000.0	8000.0	8000.0	8421.0	12254.0
1980	8818.3	9085.7	8722.5	8721.4	9217.9	9177.9	9244.9	9099.0	8361.8	8303.5	8284.9	8273.4	8262.5
	9365.3	9374.7	9382.5	9391.2	8663.7	8673.3	8684.2	8701.1	6853.4	6867.4	6881.5	6895.7	6582.9
	7300.9	7317.3	7341.3	6694.4	6597.5	7211.4	8348.4	8174.9	6595.9	8422.4	7637.4	8447.7	7959.2
	9706.4	9730.2	25598.2	20143.0	33014.0	23200.0	21929.0	20000.0	20000.0	8000.0	8217.0	19000.0	14186.0
1981	9849.0	8918.2	8753.3	8613.5	9192.2	9152.6	9044.7	9064.3	8347.2	8258.9	8213.2	8215.0	8220.8
	9336.3	9384.0	9436.0	9472.9	8751.2	8776.0	8749.2	8726.6	6866.6	6880.4	6905.4	6922.2	6599.9
	7333.8	7356.5	7385.1	6740.6	6756.3	9058.2	9042.1	8248.8	6802.9	6901.1	6693.3	6824.4	7151.6
	8225.4	10917.6	11541.7	16700.0	38600.0	36157.0	46729.0	37029.0	24971.0	17986.0	14500.0	12100.0	11256.0
1982	8790.8	8744.0	8768.8	8903.5	9187.9	9123.1	9125.5	9068.7	8305.5	8283.9	8279.1	8282.3	8295.0
	9412.6	9430.0	9447.5	9465.1	8742.4	8762.4	8709.2	8679.1	6816.1	6830.8	6845.6	6867.6	6923.0
	7311.1	7327.1	7360.5	6714.4	6512.9	7035.2	8470.3	9018.1	6903.3	7744.6	7246.8	8008.5	7893.6
	8389.1	8889.1	8912.8	14478.8	23657.0	16629.0	14471.0	20000.0	20000.0	8000.0	15693.5	26557.0	16729.0
AVG	8663.6	8580.7	8424.8	8148.4	9014.1	8977.5	8897.6	8707.3	8216.7	8204.7	8207.7	8111.0	7971.0
	9322.1	9337.0	9212.4	8908.9	8567.7	8475.1	8182.3	8064.8	6748.3	6507.9	6427.1	6381.7	6354.4
	6916.1	6822.8	6979.6	6945.3	6795.4	7274.1	7742.3	8471.1	7065.5	7595.9	7961.9	7855.8	7786.1
	9655.3	10886.0	14175.4	11884.3	19262.2	18691.9	19304.9	22319.3	21622.1	13045.7	13323.2	12928.2	12293.1

TABLE 25
Sheet 3 of 3

POST-PROJECT FLOWS AT GOLD CREEK (CFS)

1950	12856.0	8578.6	8412.1	8376.2	9062.4	9035.5	8996.3	9006.4	8203.2	8217.0	8218.6	8202.0	8196.7
	9308.5	9326.0	9348.0	8399.6	8661.0	8671.6	7753.1	7768.1	6029.4	6128.4	6136.6	6155.6	6176.6
	6526.9	6542.9	6564.5	6596.6	6408.7	7038.1	7652.1	7697.2	6585.4	6280.5	6205.9	7250.3	6985.8
	7853.0	7977.4	8180.4	9048.1	8353.9	8767.9	8527.7	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1951	5000.0	7084.5	7571.8	7382.2	8071.9	8080.2	7959.3	7965.4	8168.9	8176.2	8191.4	7348.5	7360.6
	9334.6	9354.3	8393.8	8417.6	7764.0	7775.8	7796.6	7817.5	6144.7	6152.3	6165.1	6177.9	6190.9
	6548.7	6587.0	6660.1	6795.5	6842.0	8059.8	8251.7	7169.0	6240.3	7641.3	6706.6	6342.7	6942.6
	7926.9	8311.5	8834.7	8605.8	7934.9	8144.4	8254.3	20000.0	20000.0	22845.6	18671.0	19286.0	18657.0
1952	9229.0	8626.3	8443.4	8339.7	9079.2	9058.2	8979.1	8991.2	8256.4	8237.3	8250.8	8264.3	8277.9
	9371.9	9386.9	9406.3	9427.0	8675.7	8662.2	7775.8	7796.0	6843.8	6641.2	6149.4	6161.8	6174.2
	6530.2	6544.2	6558.4	6572.6	6273.8	6321.7	6393.2	6666.7	6852.9	7148.6	8262.5	9076.9	8559.7
	9329.1	8412.8	9005.8	9219.1	21039.8	25071.0	19686.0	20000.0	20000.0	20000.0	8000.0	8000.0	14044.0
1953	11143.0	10390.0	8745.3	8528.8	9231.8	9158.4	8998.8	9081.8	8262.5	8193.3	8207.1	8220.9	8234.8
	9298.3	9308.1	9326.4	9348.9	8613.9	8617.0	8642.6	7756.7	6613.0	6828.5	6844.2	6142.7	6155.2
	7279.3	6534.6	6610.8	6732.7	7670.9	8673.3	8488.4	9688.4	6642.3	8725.8	7811.0	7230.1	7635.8
	8449.6	8213.7	8378.5	14153.6	25643.0	21857.0	17514.0	20000.0	20000.0	20000.0	15429.0	14271.0	12426.0
1954	8844.2	8691.5	8494.6	8389.0	8954.9	8955.3	8951.6	8951.3	8215.9	8197.7	8212.0	8226.4	8236.9
	9347.0	9363.3	9384.1	8422.6	8668.8	8675.0	7787.5	7807.7	6849.5	6134.1	6146.7	6159.3	6172.0
	6534.4	6548.6	6631.6	6656.1	6885.8	7490.2	8310.6	9328.2	6756.7	7166.4	7544.6	7412.9	7958.9
	8957.3	8383.2	8308.1	8293.2	15457.4	24000.0	24000.0	24000.0	23000.0	20000.0	10286.0	13057.0	9581.0
1955	8663.7	8624.5	8460.4	8468.2	9102.9	9037.7	9032.9	9010.4	8262.9	8271.6	8279.4	8264.2	8277.8
	9410.1	9430.0	9416.2	9424.8	8691.9	8702.7	7976.0	7835.0	6873.9	6869.7	6168.1	6180.0	6191.9
	7315.3	6569.3	6582.8	6596.3	6524.8	6634.6	6721.3	7867.9	6332.3	6635.6	8029.0	8825.0	8543.8
	10047.8	9388.3	8634.9	12413.5	22614.0	20900.0	21443.0	26071.0	37243.0	20000.0	14700.0	12214.0	10993.0
1956	8745.3	8535.1	8431.9	8089.2	8970.3	8941.8	8938.9	8001.2	8198.1	8180.2	8195.0	8209.8	7366.9
	9318.3	9333.9	9356.0	8395.3	8658.5	7771.3	7791.5	7811.9	6145.6	6156.2	6168.5	6180.8	6193.2
	6546.8	6560.8	6575.0	6589.2	6430.2	7406.5	7928.3	10395.8	6771.4	8565.8	9656.6	8338.9	7896.0
	9428.7	16976.2	32000.0	31229.0	31429.0	28771.0	26000.0	20729.0	20000.0	20000.0	16143.0	21857.0	16000.0
1957	8741.1	8744.2	8489.7	8453.5	9106.3	9056.2	9054.6	9049.6	8515.6	8287.6	8292.9	8257.2	8270.8
	9373.9	9389.1	9408.2	9428.0	8694.2	8704.1	8727.7	7839.0	6878.1	6874.1	6173.0	6184.6	6196.2
	7307.0	6561.8	6575.2	6588.7	6502.0	6764.7	7163.9	8432.2	7796.6	9006.5	8491.7	8053.2	7001.1
	8795.8	8566.6	8837.4	18407.9	20957.0	20943.0	20829.0	20000.0	20243.0	20000.0	19557.0	20971.0	22029.0
1958	10333.0	8927.0	8744.9	8772.8	9276.3	9182.4	9120.9	9055.2	8384.6	8475.2	8413.1	8318.7	8273.9
	9411.7	9395.3	9382.3	9390.0	8634.7	8649.6	8651.7	8661.2	6817.8	6832.2	6843.2	6850.2	6865.2
	7268.2	7300.7	7329.9	7380.0	6535.6	6966.7	8028.7	9111.1	6803.5	7953.9	7927.6	7477.9	7223.1
	8672.7	8654.3	8636.1	8569.8	33356.3	27529.0	20443.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1959	5000.0	6713.2	7679.3	7510.1	9035.1	9006.1	8977.0	8007.1	8198.0	8163.9	8192.0	8282.9	7438.4
	9382.2	9395.5	9185.8	8443.1	8705.6	7818.3	7831.2	7834.8	6875.7	6159.7	6171.8	6184.1	6196.4
	6550.8	6564.7	6625.7	6646.4	6463.6	6656.1	8278.4	9864.5	6850.1	7238.3	6999.1	7393.1	7682.8
	9187.8	9047.4	9261.2	8592.1	11727.0	18629.0	23914.0	44171.0	43171.0	28700.0	14829.0	11137.0	12007.0
1960	10714.0	8763.4	8394.3	8516.7	9072.8	9030.6	9029.6	9025.4	8291.8	8264.2	8277.1	8290.0	8303.0
	9405.2	9419.7	9414.5	9424.1	8690.2	8699.3	8719.3	7823.6	6873.6	6881.7	6890.1	6171.6	6183.5
	7294.2	6549.4	6601.0	6620.0	6766.6	6958.7	7731.0	9332.1	7055.4	6000.0	6000.0	6534.0	6697.7
	8165.4	7487.6	8419.7	9212.8	9774.2	9006.1	17781.4	21714.0	20857.0	20000.0	27257.0	20514.0	17557.0
1961	12529.0	9100.0	8660.1	8468.1	9077.0	9056.8	9041.4	9016.9	8306.2	8333.8	8339.0	8312.6	8325.0
	9433.4	9449.1	9474.1	9494.9	8735.9	8707.9	8723.8	8734.4	6879.8	6881.6	6913.3	6974.6	6987.4
	7421.4	7435.0	7476.4	7493.9	7610.8	8210.6	9217.3	9073.8	6535.1	6935.6	8253.4	9093.5	8379.0
	8741.8	10959.3	25000.0	25900.0	25643.0	26000.0	22200.0	21071.0	20000.0	20000.0	8000.0	8000.0	15072.0
1962	10429.0	8451.1	8458.7	8406.5	9080.9	9003.1	9017.5	9031.9	8293.3	8259.1	8272.2	8285.3	8298.6
	9402.0	9416.9	9435.5	9455.2	8712.8	8709.6	8733.1	7844.0	6892.6	6900.1	6198.2	6209.4	6220.6
	7364.1	6617.6	6629.9	6642.2	6531.3	6625.3	7470.6	8092.9	7527.8	7704.4	11351.2	10371.9	8699.3
	24265.1	26545.0	23129.0	27186.0	26057.0	23000.0	23000.0	23000.0	23429.0	23571.0	14886.0	12057.0	13871.0

TABLE 26
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1963	9150.0	8716.0	8619.0	8556.9	9092.7	9004.0	9018.1	9032.3	8289.6	8230.2	8251.4	8264.8	8270.1
	9360.4	9373.7	9393.0	9412.7	8684.1	8698.8	8722.5	7834.3	6865.3	6848.2	6865.4	6161.6	6173.7
	7266.2	6521.9	6536.2	6550.5	6423.6	6512.2	6238.3	10234.1	8309.0	7719.7	7697.5	7679.0	7661.7
	9678.1	14655.4	38143.0	32571.0	27600.0	25143.0	21814.0	23071.0	20000.0	20000.0	8224.0	10824.0	10979.0
1964	8930.7	8773.3	8624.8	8463.7	9002.2	8984.5	8965.5	8936.0	8213.7	8211.2	8218.4	8195.9	8209.8
	9314.6	9331.3	9344.7	8380.4	8640.0	8665.2	7776.5	7791.1	6836.3	6126.2	6135.7	6139.3	6152.3
	6510.4	6525.0	6546.2	6561.9	6243.4	6275.5	6526.9	6523.3	7629.4	12754.6	10546.9	9565.8	8208.4
	8993.6	25456.2	24671.0	16929.0	19757.0	18729.0	15100.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1965	5648.6	8904.0	8573.5	8451.2	9031.5	9017.7	9028.2	9078.9	8238.0	8177.5	8175.1	8178.2	8193.4
	9303.5	9322.2	9343.6	8382.9	8639.9	8659.1	7772.1	7792.7	6846.4	6147.8	6160.1	6172.4	6184.9
	6568.2	6581.7	6629.1	6647.1	6368.7	6746.4	7183.0	7997.4	8112.0	6798.0	6944.3	7320.0	8476.2
	9628.8	9630.6	9368.9	8921.4	21753.8	19671.0	10386.0	20371.0	20000.0	20000.0	8892.0	18943.0	25043.0
1966	15086.0	8873.7	8376.9	8310.3	8993.6	8952.0	8930.4	8943.5	8218.6	8218.8	8226.5	8233.4	8240.9
	9353.3	9370.5	9390.7	8429.0	8685.9	8701.8	7814.1	7833.4	6885.6	6184.3	6195.7	6207.1	6218.7
	6744.3	6604.3	6668.1	6688.5	6463.2	6566.7	6933.6	7655.0	6795.3	9643.1	8619.4	8004.6	7483.4
	8296.3	8182.4	8261.9	8521.0	13653.0	22914.0	18843.0	22829.9	20000.0	20000.0	8000.0	8071.0	10314.0
1967	8718.6	8464.5	8348.1	7381.8	8891.0	8893.0	8909.7	7997.7	8203.8	8210.2	8224.6	8239.0	7395.2
	9378.0	9397.7	8435.8	8454.5	8712.1	7818.0	7837.0	7856.2	6897.0	6182.4	6194.1	6205.8	6217.6
	6558.2	6571.9	6589.2	6621.6	6340.2	6697.8	8031.7	8760.5	7569.4	7294.9	8696.2	8025.2	7935.9
	8616.6	8588.9	9510.1	27353.5	27100.0	25043.0	54871.0	30600.0	20614.0	29071.0	17157.0	12471.0	10831.0
1968	8703.1	8578.2	8448.9	7850.2	9011.1	8978.1	8978.7	8983.7	8261.4	8266.6	8279.7	8283.2	8295.5
	9418.9	9437.2	9455.8	8489.2	8736.5	8760.9	7874.1	7889.9	6941.9	6954.9	6252.0	6262.1	6272.2
	7377.4	7143.7	6646.3	6671.8	6367.6	6453.5	7568.1	10549.4	7410.0	7779.3	8907.2	8939.9	7781.2
	9468.3	14203.1	25857.0	24986.0	22214.0	20143.0	16757.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1969	5030.6	8437.9	7490.2	7455.3	8989.9	8940.7	8529.2	7970.3	8156.0	8155.7	8165.6	7317.7	7325.7
	9307.9	9328.9	8363.0	8387.6	7741.4	7762.4	7784.5	7810.3	6141.1	6157.4	6171.6	6189.4	6204.6
	6568.2	6601.6	6652.2	6732.8	6543.9	6834.7	7425.1	8355.5	6000.0	6000.0	6197.7	6359.0	6158.6
	7232.8	7628.1	7662.6	7314.7	7108.4	7199.0	8000.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1970	5700.0	7025.8	7649.0	7544.6	8175.6	8165.6	8152.9	8160.7	7499.2	7514.1	7528.7	7547.1	7566.7
	8615.5	8641.6	8663.9	8689.1	8022.6	8049.0	8071.2	8098.9	6370.2	6386.9	6404.7	6425.7	6443.0
	6821.3	8205.8	13045.3	13481.8	12837.2	10827.6	6000.0	6417.9	6549.9	6404.3	6520.3	6209.0	7342.7
	8577.0	8107.2	8247.3	8113.1	8629.2	8205.6	8000.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1971	5000.0	7902.1	7777.1	7703.4	8367.7	8356.1	8324.1	8297.7	7611.0	7605.8	7601.1	7593.9	7583.7
	8588.5	8590.6	8598.0	8603.6	7934.7	7949.0	7959.5	7981.0	6278.2	6287.5	6300.7	6315.2	6330.8
	6695.6	6717.8	6745.1	6776.1	6468.0	6530.1	6640.1	6881.1	6000.0	7039.3	9653.4	7591.8	8766.7
	8415.4	8434.8	8826.6	7686.7	8305.3	10562.0	10650.8	22364.4	20000.0	22328.0	14586.0	11029.0	10939.0
1972	8802.2	8715.1	8531.4	8434.7	9087.6	9061.7	9056.3	9049.9	8315.8	8309.4	8321.5	8311.0	8323.6
	9443.6	9438.8	9456.7	9474.7	8749.7	8755.1	8767.0	8789.1	6925.4	6935.7	6939.1	6952.4	6245.2
	7344.8	7360.5	6606.7	6626.7	6482.9	8980.6	8926.3	9736.6	7289.7	7519.3	9620.1	8990.7	11055.4
	25371.0	25357.0	22600.0	18429.0	20245.0	21729.0	19929.0	20600.0	20000.0	20000.0	8000.0	10287.0	8000.0
1973	7853.7	8480.7	8639.7	7623.6	9041.4	8991.5	8964.4	8532.3	8214.4	8212.7	8207.9	8218.8	7376.0
	9338.4	9355.0	9376.2	8414.9	8677.0	8701.8	7813.1	7832.8	6874.2	6160.1	6172.2	6184.4	6196.6
	6548.2	6562.8	6576.8	6597.0	6305.4	6457.7	7174.6	7547.2	6157.7	6637.1	8102.1	8891.6	7473.0
	7948.0	8490.1	7927.9	8050.4	7518.9	8417.0	8042.8	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1974	5000.0	8101.8	7463.3	7386.0	8920.4	8906.5	7981.2	7980.7	8177.6	8178.5	8181.2	7333.1	7341.9
	9323.3	9345.0	8380.3	8402.7	7754.2	7771.2	7791.0	7807.9	6139.3	6152.0	6163.2	6172.0	[illegible].0
	6539.3	6557.6	6588.6	6659.5	6456.0	6901.3	7521.6	9181.1	7858.1	6531.9	6209.0	6065.4	6[illegible].7
	7513.2	7956.0	7745.6	8307.7	7539.7	7635.9	8000.0	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1975	6213.0	8558.3	7955.0	7335.9	8894.8	8911.4	8825.8	8013.5	8221.6	8226.4	8240.5	7397.5	7408.6
	9390.4	9400.3	8438.4	8457.7	8719.9	7832.0	7850.8	7863.6	6909.1	6205.8	6217.1	6228.4	6239.7
	6591.0	6605.5	6633.1	6676.7	6456.8	6901.9	7796.8	8651.2	7751.2	8891.2	7854.7	8615.3	8186.6
	9264.8	9510.0	24722.7	25929.0	24200.0	19486.0	18614.0	20000.0	20000.0	20000.0	11050.5	18629.0	17943.0

TABLE 26
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1976	10286.0	9071.0	8870.5	8488.9	9055.2	8958.9	8908.1	8082.4	8143.1	8143.7	8153.5	8164.0	8173.1
	9297.1	9317.7	9333.9	8931.5	8633.1	8658.4	7772.0	7792.3	6843.6	6139.6	6151.8	6164.2	6176.6
	6528.5	6547.7	6585.0	6685.4	6682.0	7665.5	7592.8	7647.2	6170.9	7430.2	8156.6	7149.5	7055.0
	7745.1	8385.6	8269.4	8307.2	8611.1	9265.3	14836.5	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1977	5000.0	7860.5	7536.0	7495.5	9035.2	9023.5	9019.1	8089.0	8351.1	8343.1	8326.9	8317.3	7454.1
	9418.9	9431.2	9439.3	8472.0	8725.1	8740.5	7848.7	7867.2	6913.6	6581.2	6217.4	6228.4	6239.5
	7362.6	6615.3	6636.9	6657.9	6350.5	6522.8	7516.3	8236.0	7614.1	8224.1	9966.6	9007.2	8527.2
	8596.0	11063.5	25514.0	21229.0	22286.0	21529.0	19514.0	20000.0	20000.0	20000.0	8000.0	12045.0	13534.0
1978	8923.9	8938.1	8816.4	8595.2	9178.5	9109.5	9079.0	9063.8	8319.9	8308.4	8307.2	8309.9	8300.5
	9403.8	9406.9	9413.0	9422.1	8685.4	8690.8	8703.8	8726.2	6873.5	6887.0	6900.6	6914.3	6930.1
	7324.2	7339.8	7355.6	6619.6	6499.7	8202.9	8695.9	8067.4	6000.0	6061.1	6708.1	6860.0	7342.3
	8086.4	8553.7	8561.4	8499.7	8444.6	8305.0	8139.6	20000.0	20000.0	20000.0	8000.0	8000.0	8000.0
1979	5000.0	7919.3	8502.8	7529.9	9099.9	9062.8	8986.7	8043.7	8242.5	8248.1	8243.1	8237.6	7388.2
	9364.5	9377.5	9398.3	8436.5	8687.1	8711.3	7822.7	7842.1	6882.1	6180.2	6191.8	6203.5	6215.3
	6566.9	6586.4	6614.4	6665.9	6444.7	6714.6	7465.2	8234.6	7887.3	7400.2	7400.3	7130.2	7663.5
	9183.3	9129.3	9740.6	12281.3	26514.0	24800.0	20029.0	20000.0	20000.0	20000.0	8000.0	8000.0	9837.5
1980	8818.3	9085.7	8722.5	8521.4	9217.9	9177.9	9244.9	9099.0	8361.8	8303.5	8284.9	8273.4	8262.5
	9365.3	9374.7	9382.5	9391.2	8663.7	8673.3	8684.2	8701.1	6853.4	6867.4	6881.5	6895.7	6582.9
	7300.9	7317.3	7341.3	6653.2	6558.2	7172.0	8348.1	8174.6	6567.7	8422.5	7637.2	8447.6	7959.1
	9706.2	9730.0	25747.6	30143.0	33014.0	23200.0	21929.0	20000.0	20000.0	20000.0	8000.0	14760.5	14186.0
1981	9849.0	8918.2	8753.3	8613.5	9192.2	9152.6	9044.7	9064.3	8347.2	8258.9	8213.2	8215.0	8220.8
	9336.3	9384.0	9436.0	9472.9	8751.2	8776.0	8749.2	8726.6	6866.6	6880.4	6905.4	6922.2	6599.9
	7333.8	7356.5	7385.1	6699.4	6717.1	9058.0	9041.9	8248.6	6775.0	6900.9	6693.2	6824.2	7151.4
	8225.3	10917.4	11651.5	36700.0	38600.0	36157.0	46729.0	37029.0	24971.0	20000.0	12486.0	12100.0	11256.0
1982	8790.8	8744.0	8768.8	8903.5	9187.9	9123.1	9125.5	9068.7	8305.5	8283.9	8279.1	8282.3	8295.0
	9412.6	9430.0	9447.5	9465.1	8742.4	8762.4	8709.2	8679.1	6816.1	6830.8	6845.6	6867.6	6923.0
	7311.1	7327.1	7360.5	6673.2	6473.7	6995.9	8470.0	9017.9	6875.2	7744.4	7246.6	8008.4	7893.4
	8388.8	8888.9	8912.6	14628.6	23657.0	16629.0	14471.0	20000.0	20000.0	20000.0	8000.0	22250.5	16729.0
AVG	8425.2	8523.0	8346.8	8133.6	9011.6	8974.9	8866.2	8681.3	8414.3	8202.2	8205.2	8102.9	7954.4
	9319.2	9334.0	9194.7	8860.0	8560.4	8463.7	8152.5	8025.8	6747.8	6501.1	6401.0	6349.8	6322.3
	6919.7	6805.1	6944.4	6904.8	6755.4	7237.1	7715.0	8448.9	7040.4	7581.8	7951.8	7855.9	7480.1
	9659.3	10969.4	14199.0	15931.3	19307.1	18702.5	19340.9	22352.1	21622.1	20803.5	11156.3	12117.5	12176.6

TABLE 26
Sheet 3 of 3

Table 27

AVERAGE WEEKLY ENERGY PRODUCTION
FOR DOWNSTREAM FLOW CASES
WATANA 2185 AND DEVIL CANYON

	Average Energy Production (GWh)			
Week	Case 1	Case 2	Case 3	Case 4
1	131	131	131	131
2	130	131	131	131
3	129	129	129	128
4	126	126	126	126
5	142	142	142	142
6	142	142	142	142
7	141	141	141	140
8	138	138	138	137
9	130	130	130	130
10	130	130	130	130
11	130	130	130	130
12	129	128	128	128
13	126	126	126	126
14	148	148	148	148
15	148	148	148	148
16	146	145	145	145
17	141	140	140	140
18	135	135	135	135
19	134	133	133	133
20	129	128	128	128
21	127	126	126	125
22	105	105	105	105
23	102	101	101	101
24	100	99	100	99
25	99	98	99	98
26	98	98	98	97
27	107	106	106	107
28	105	104	104	104
29	104	104	104	103
30	103	102	102	102
31	97	96	97	96
32	99	98	98	98
33	100	99	99	99
34	102	101	101	101
35	70	70	70	70
36	73	73	73	72
37	75	74	75	74
38	76	76	76	76
39	77	77	77	77
40	98	98	98	98
41	99	99	99	99
42	100	99	100	100
43	100	100	100	99
44	99	99	99	100
45	100	100	100	101
46	101	101	101	101
47	101	101	101	101
48	89	89	89	89
49	89	89	89	90
50	89	89	89	90
51	89	89	89	89
52	89	89	89	89
Annual	5765	5749	5754	5742

Table 28

MINIMUM WEEKLY ENERGY PRODUCTION
FOR DOWNSTREAM FLOW CASES
WATANA 2185 AND DEVIL CANYON

	Minimum Energy Production (GWh)			
Week	Case 1	Case 2	Case 3	Case 4
1	131	131	131	131
2	118	128	131	128
3	118	117	118	117
4	119	117	118	117
5	129	128	128	128
6	129	128	128	128
7	129	128	128	128
8	129	128	128	128
9	119	117	118	117
10	119	117	118	117
11	118	117	118	117
12	118	117	118	117
13	118	117	118	117
14	135	133	134	133
15	135	133	134	133
16	135	133	134	133
17	135	133	134	133
18	124	123	123	122
19	124	123	123	122
20	124	123	123	122
21	124	123	123	122
22	97	96	96	96
23	97	96	96	96
24	97	96	96	96
25	97	96	96	96
26	97	96	96	96
27	102	101	102	101
28	102	101	102	101
29	102	101	102	101
30	102	101	102	101
31	97	96	96	96
32	97	96	96	96
33	97	96	96	96
34	97	96	96	96
35	73	73	73	73
36	73	73	73	73
37	70	69	70	69
38	70	69	70	69
39	70	69	70	69
40	91	91	91	90
41	91	91	91	90
42	91	91	91	90
43	92	91	91	90
44	92	91	91	90
45	92	91	91	90
46	94	101	101	101
47	101	101	101	101
48	89	89	89	89
49	89	89	89	89
50	89	89	89	89
51	89	89	89	89
52	89	89	89	89
Annual	5471	5434	5449	5417

EXHIBIT 1

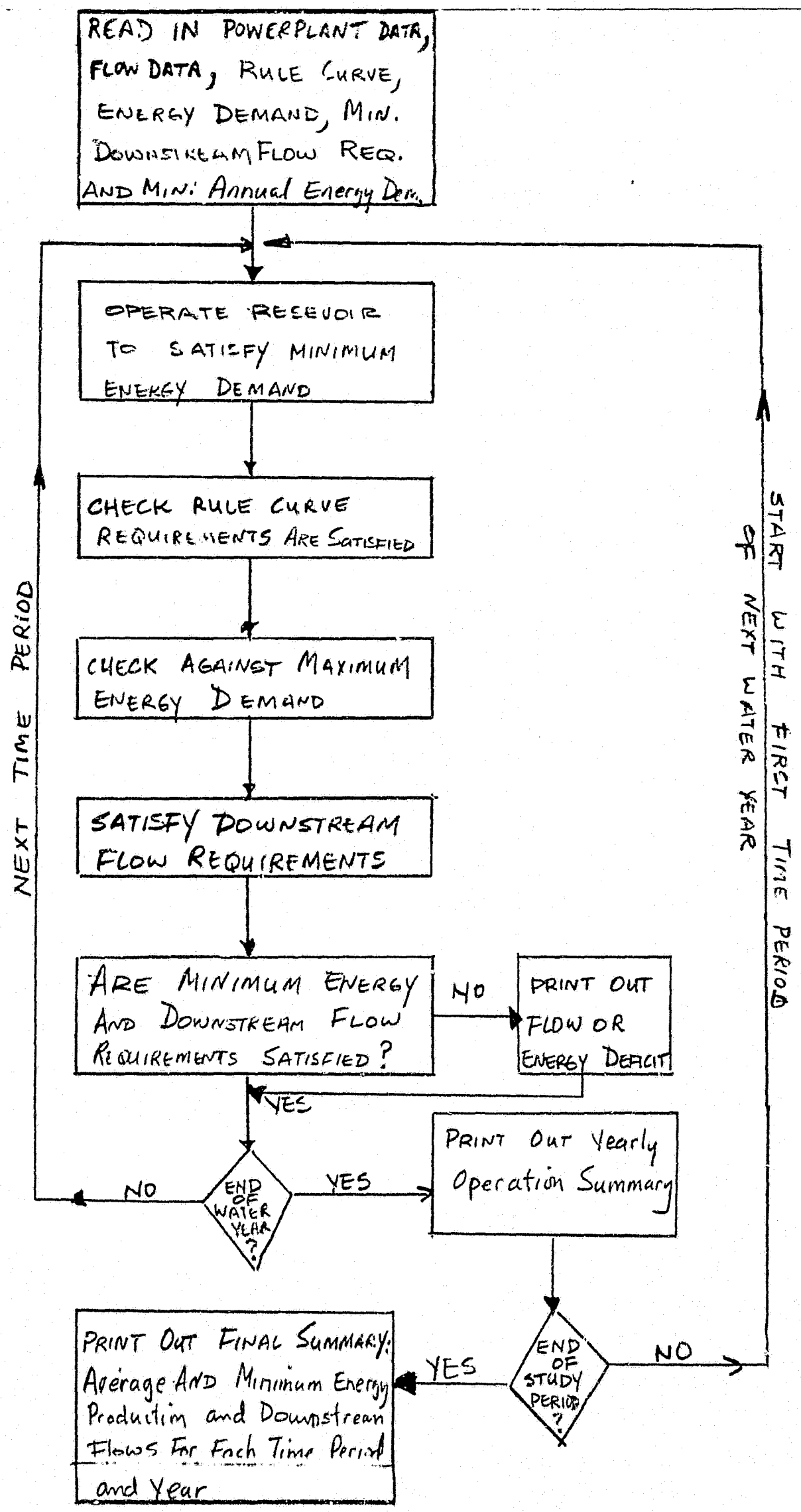
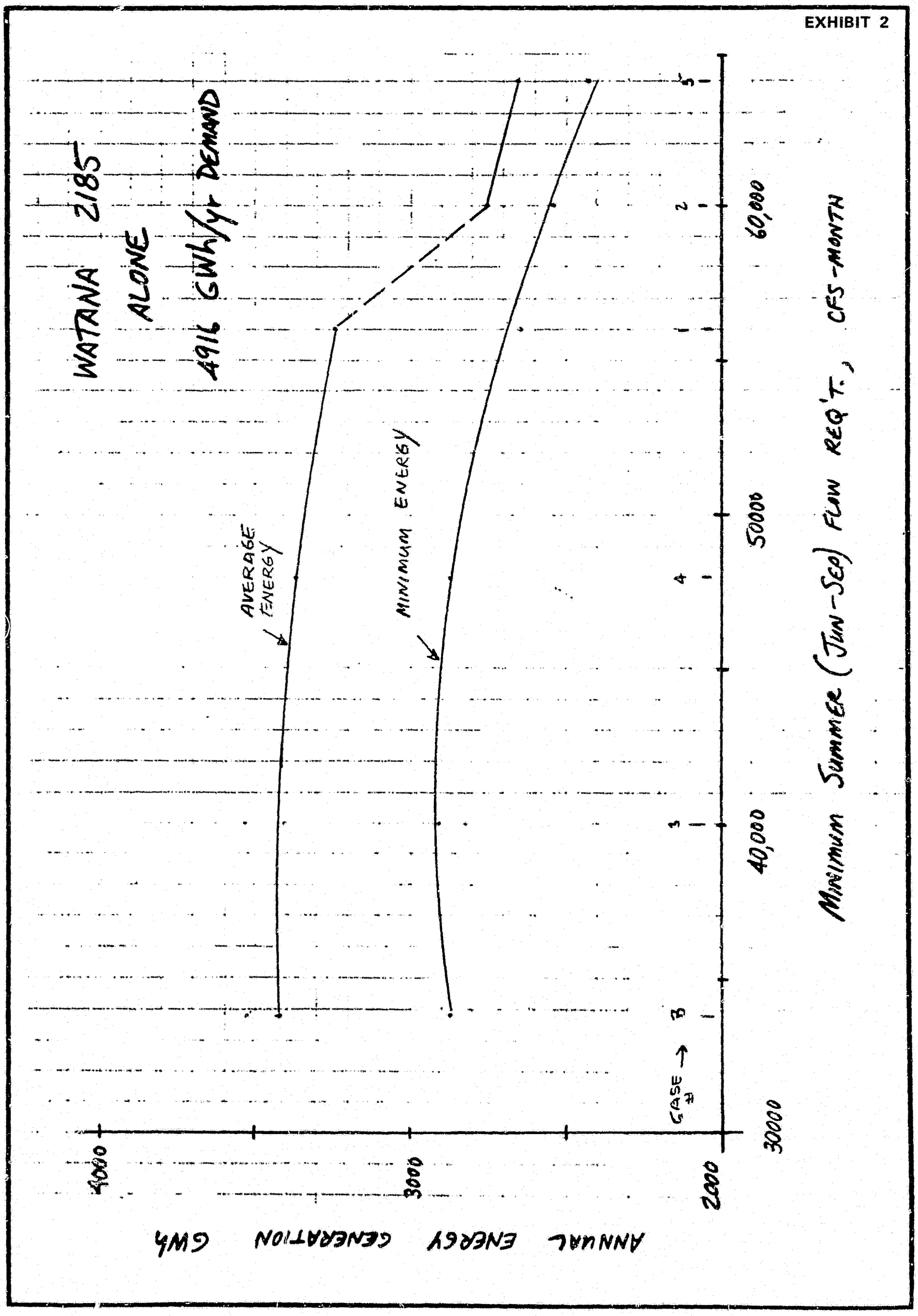

READ IN POWERPLANT DATA, FLOW DATA, RULE CURVE, ENERGY DEMAND, MIN. DOWNSTREAM FLOW REQ. AND MIN. Annual Energy Dem.
OPERATE RESERVOIR TO SATISFY MINIMUM ENERGY DEMAND
CHECK RULE CURVE REQUIREMENTS ARE SATISFIED
CHECK AGAINST MAXIMUM ENERGY DEMAND
SATISFY DOWNSTREAM FLOW REQUIREMENTS
ARE MINIMUM ENERGY AND DOWNSTREAM FLOW REQUIREMENTS SATISFIED?
NO
PRINT OUT FLOW OR ENERGY DEFICIT
YES
END OF WATER YEAR?
NO
YES
PRINT OUT Yearly Operation Summary
END OF STUDY PERIOD?
YES
NO
PRINT OUT FINAL SUMMARY: Average AND Minimum Energy Production and Downstream Flows For Each Time Period and Year
NEXT TIME PERIOD
START WITH FIRST TIME PERIOD OF NEXT WATER YEAR

EXHIBIT 2


WATANA 2185
ALONE
4916 GWh/yr DEMAND
AVERAGE ENERGY
MINIMUM ENERGY
ANNUAL ENERGY GENERATION GWh
4000
3000
2000
CASE #
3
2
1
4
5
30000
40,000
50000
60,000
Minimum Summer (Jun-Sep) Flow Req't., CFS-Month

WATANA 2185
AND
DEVIL CANYON
5945 GWh/yr DEMAND

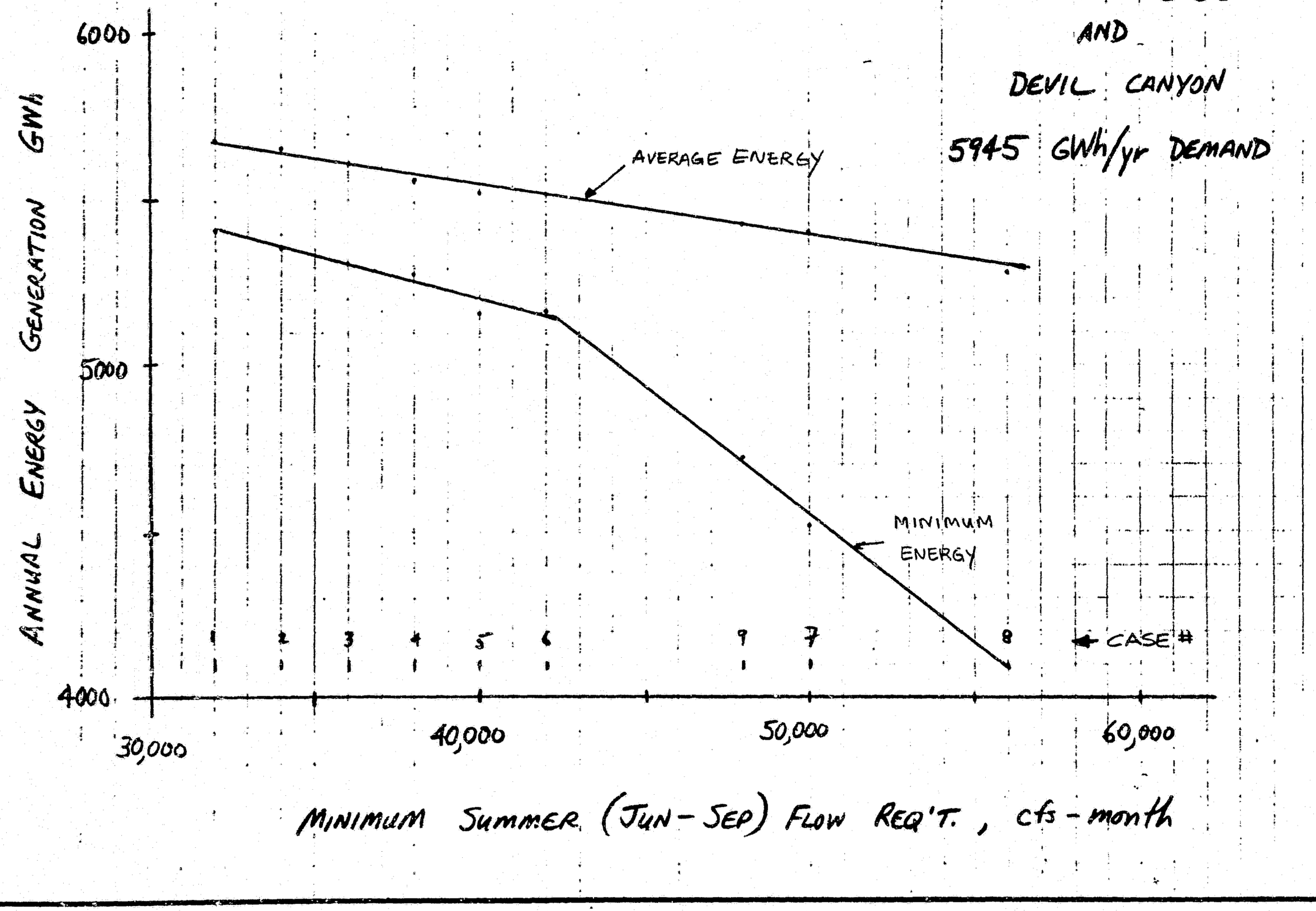


EXHIBIT 3

WEEKLY ENERGY PRODUCTION

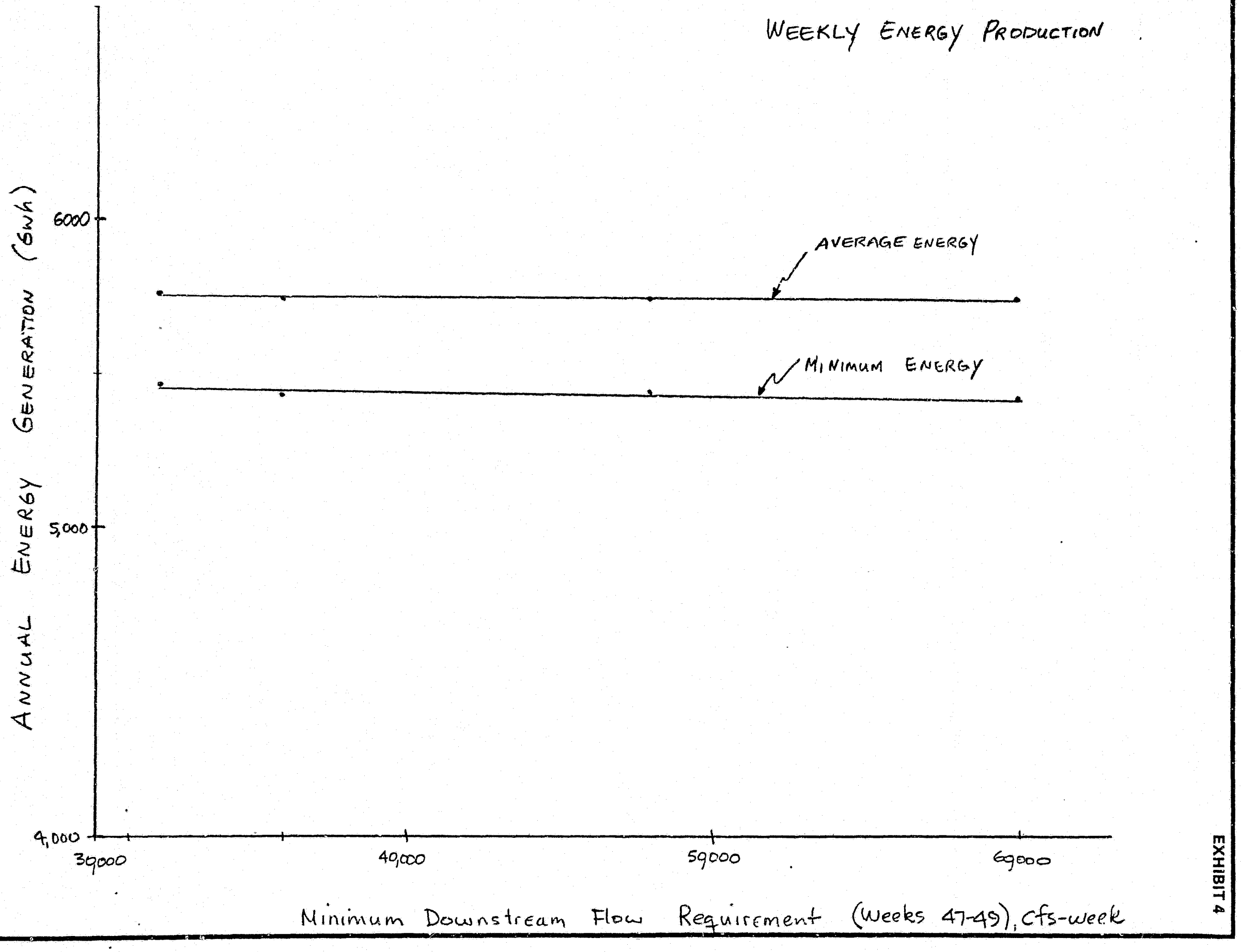


EXHIBIT 4