

DETAILED OPERATING PLAN FOR COLUMBIA RIVER TREATY STORAGE

1 AUGUST 1996
THROUGH 31 JULY 1997



COLUMBIA RIVER TREATY OPERATING COMMITTEE

AUGUST 1996

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I. REFERENCES AND INTERPRETATION

In this document:

- A. "Principles and Procedures" means the document "Principles and Procedures for the Preparation and Use of Hydroelectric Operating Plans," dated December 1991.
- B. "Assured Operating Plan" (AOP) means the document "Columbia River Treaty Hydroelectric Operating Plan-Assured Operating Plan for Operating Year 1996-1997," dated February 1992."
- C. "Flood Control Plan" means the document "Columbia River Treaty Flood Control Operating Plan," October 1972, as modified by changes agreed to in letter from Mr. Ralph Legge to Mr. Nicholas Dodge on 31 May 1995. The flood control allocation for this Operating Year will be 2.08 MAF at Mica and 5.1 MAF at Arrow as indicated respectively by Chart 5 and Chart 7 of the Flood Control Plan.
- D. "Operating Year" means the period from 1 August 1996 through 31 July 1997.
- E. "Operating Committee" means the Columbia River Treaty Operating Committee.
- F. "Detailed Operating Plan" (DOP) means a detailed operating plan prepared for the Operating Year by the Operating Committee pursuant to the guidelines provided in the Principles and Procedures and consisting of the contents of this document.
- G. "Runoff Volume Forecast Program for Canadian Columbia River Treaty Reservoirs" means the document of that title dated 1 Jan 1992, with subsequent modifications as agreed by the Operating Committee.
- H. "Treaty Storage Regulation" (TSR) means the Coordinated System hydroregulation study performed for the Operating Committee by Bonneville Power Administration (BPA) staff that implements the DOP operating criteria using actual and forecasted streamflow conditions.
- I. "Refill Studies" means multi-water-year hydroregulation studies that determine the Power Discharge Requirements used in the calculation of the Assured Refill Curves and the Variable Refill Curves.
- J. "Weekly Treaty Storage Operation Agreement" means the note electronically transferred (faxed or teletype) each Friday from the U.S. Section to the Canadian Section of the Operating Committee to confirm the verbal agreement by the Operating Committee for the weekly Treaty storage changes and outflows that implement this DOP.

II. PREPARATION AND SCOPE

This Detailed Operating Plan has been developed from the operating criteria contained in the 1996-97 Assured Operating Plan and its supporting hydroregulation studies. The system loads, resources, and nonpower requirements used are those agreed to by the Entities for the 1996-97 AOP, because the Entities could not agree to the major changes in U.S. nonpower requirements. This DOP will use the 1996-97 AOP four year critical period study and operating criteria for both Canadian and U.S. projects to define the Canadian Treaty storage operation.

The usable Columbia River Treaty storage space available for power purposes during the Operating Year is 15.5 million acre-feet in Canada and 4.9795 million acre-feet at Libby in the United States, distributed as follows:

Duncan Reservoir

1.4 million acre-feet (705.8 thousand second-foot-days) between elevations 1892.0 feet and 1794.2 feet measured at Duncan forebay. (Based on B.C. Hydro table dated 21 February 1973.)

Arrow Reservoir

7.1 million acre-feet (3579.6 thousand second-foot-days) between elevations 1444.0 feet and 1377.9 feet measured at Fauquier, B.C. (Based on B.C. Hydro table dated 28 February 1974.)

Kinbasket Reservoir (Mica)

7.0 million acre-feet (3529.2 thousand second-foot-days) measured at Mica forebay. (Based on B.C. Hydro table dated 25 March 1974.)

Lake Koocanusa (Libby)

4.9795 million acre-feet (2510.5 thousand second-foot-days) between elevation 2459.0 feet and 2287.0 feet measured at Libby forebay.

The usable Canadian storage available for normal flood-control purposes for the Operating Year is 1.27 million acre-feet in Duncan Reservoir below elevation 1892.0 feet; 5.1 million acre-feet in Arrow Reservoir below elevation 1444.0 feet; and 2.08 million acre-feet in Kinbasket Lake (Mica Reservoir) except that additional storage may also be operated for flood control purposes under special circumstances, as described in the Flood Control Plan. Prior to March 1996, the Canadian Entity may reallocate the flood control storage space between Mica and Arrow provided the Operating Committee agrees that the reallocation provides the same degree of flood control protection.

III. POWER DELIVERIES - Entitlement Purchase Agreement Compensation

The Entity agreement on the Determination of Downstream Power Benefits (DDPB) for Operating Year 1996-97 indicated that the U.S. Entity is entitled to receive 0.9 aMW of energy but no dependable capacity from British Columbia Hydro and Power Authority during the period 1 August 1996 through 31 March 1997, in accordance with Sections 7 and 10 of the Canadian Entitlement Purchase Agreement dated 13 August 1964. The Entity agreement on the DDPB for Operating Year 1997-98, indicated that the U.S. Entity is entitled to receive 2.8 aMW of energy and no dependable capacity from British Columbia Hydro and Power Authority during the period 1 April 1997 through 31 July 1997, in accordance with Sections 7 and 10 of the Canadian Entitlement Purchase Agreement dated 13 August 1964. Suitable arrangements for delivery of this energy will be made between the BPA and British Columbia Hydro and Power Authority.

IV. STORAGE OPERATIONS

A. Operation Authority

The operation of Treaty storage by the Columbia River Treaty Operating Committee during the period 1 August 1996 through 31 July 1997 shall be in accordance with Sections I through VII of this DOP and any operational agreements signed by the Entities during the operating year. Consistent with the operating principles in this section, the Operating Committee may from time-to-time agree to mutually beneficial changes in the operating procedures contained in this document. These changes will be documented and reported to the Entities.

B. Storage Operation to TSR Level

Except as allowed in subsection C below, the weekly Treaty Storage Operation Agreements shall be based on operating Canadian Treaty projects to the end-of-month elevations contained in the current TSR. The TSR shall be based on the operating criteria described in this document.

C. Storage Operation Above and Below TSR Levels

Consistent with flood control, operating limits, and the principles and limitations defined below, the Operating Committee may agree to mutually beneficial arrangements for storage above and below the TSR levels to meet power and nonpower objectives.

1. Power Objectives

Power objectives include minimizing spill and optimizing energy production, power marketing, and purchase decisions. Operations for power objectives may be combined with nonpower objectives.

2. Nonpower Objectives

Operations designed to help meet nonpower objectives does not imply that either Entity acknowledges any obligation, domestic or international, to meet those objectives. The Entities agree that operation(s) for nonpower objectives does not set a precedent concerning any current or future dispute over Treaty rights and obligations, nor do they set a precedent for non-power objectives or flow objectives and contents.

Canadian nonpower objectives contemplated include but are not limited to white fish and trout spawning downstream of Keenleyside, dust storm avoidance upstream of Keenleyside, and recreation needs. US nonpower objectives include but are not limited to storage up to 1 MAF for anadromous fish flow augmentation, minimum flows at Vernita Bar for fish spawning, and recreation needs. Nonpower objectives considered in this section, does not include flood control and operating limits in Section VII.

Recognizing that it may not be possible to meet all nonpower objectives, the Operating Committee shall in general attempt to share equally the risk and amount of failure. The parties shall make reasonable efforts to use available flexibility at their projects prior to requesting changes to Treaty storage.

During January 1995, the Treaty discharge request from Keenleyside was reduced by 25 kcfs for a period of about one week to maintain lower flows for mountain whitefish spawning downstream of Keenleyside. In return for this flexibility, the U.S. Section received the right to a

flexibility provisional draft below TSR of 188 ksfd, between Labour Day, 1996 and the start of the 1996 fall whitefish spawning period, at rate of 5 kcfs. The flexibility provisional draft will be returned at rate of 5 kcfs by 30 April, 1997, excluding March to avoid reducing whitefish incubation flows.

V. SCHEDULING STORAGE REGULATION

A. Operating Data

The Operating Committee will exchange all current operating data necessary for the regulation of Canadian storage projects as soon as available, including the beginning and end of the flood control season.

B. Volume Runoff Forecasts

Seasonal runoff volume forecasts for Canadian Treaty Projects shall be made available by the Canadian Section no later than the seventh of each month, as required. Forecasts of seasonal runoff volume at periods other than those representing month-end conditions may be requested by the Operating Committee if hydrologic conditions warrant. Preliminary seasonal runoff volume forecasts for the Columbia River at The Dalles, Oregon, shall be made available by the U.S. Section on the second working day of each month as required.

C. Treaty Storage Regulation Study

The TSR study is performed at least twice each month (within the first ten days and the last five days of each month). It is based on the loads, thermal and hydro-independent resources, critical rule curves, non-power constraints, and other plant and operating data contained in the 1996-97 AOP, except for the following significant changes

1. Brownlee storage operation is simulated instead of the fixed operation provided by Idaho Power Company for the AOP.
2. The Kootenay Lake IJC mode of operation for Duncan and Libby agreed to for the 2001-02 AOP.

The actual and forecasted unregulated streamflows, variable energy content curves, the flood control storage evacuation requirements, and the variable flood control refill curves determined by the U.S. Army Corps of Engineers will be updated for each TSR study as agreed by the Operating Committee. During the operating year the Operating Committee may agree to other changes from the AOP data. Additional weekly studies will be performed at the request of either section of the Operating Committee to reflect the most current forecast unregulated streamflows, variable energy content curves, flood control space storage evacuation requirements, and flood control refill curves for determining the Treaty Storage releases.

During the Flood Control Storage Evacuation Period and the Flood Control Refill period, the projects Upper Rule Curves will be determined through 31 July by the North Pacific Division, Corps of Engineers, in accordance with the Flood Control Plan and the Principles and Procedures as referenced in Section I. These curves will be computed consistent with the timing of the TSR Schedule.

D. Scheduling Agreements

Unless otherwise agreed, requests by the U.S. Section of the Operating Committee for the regulation of the Canadian storage content will be made to the Canadian Section on a regular basis in accordance with the following procedures:

1. Weekly Agreement for Storage Regulation During the Storage Drawdown Season

- a) **Timing.** A preliminary request will be made not later than noon each Thursday, followed by a final agreement by noon Friday, if necessary.
- b) **Confirmation.** Confirmation of the Treaty Storage Operation Agreement will be transmitted via the hydromet reporting network or fax on Friday in accordance with the following format unless otherwise agreed:

This message confirms our verbal agreement on
[day, month (spell-out), year] that the (*storing/drafting*) of an estimated
 ksf^d (*in/from*) the whole of Canadian Treaty Storage for the Period
 through is consistent with the DOP.

This agreement is based on an estimated average inflow during the above mentioned period of

 kcfs to Duncan Reservoir,
 kcfs to Libby Reservoir,
 kcfs to Mica Reservoir, and

Estimated average regulated inflow of

 kcfs to Arrow Reservoir, and an

Estimated regulated outflow of

 kcfs from the Libby Project

That will result in average weekly Treaty discharges of

 kcfs from the Duncan Project,
 kcfs from the Mica Project, and
 kcfs from the Arrow Project.

This operation is based on the DOP TSR expected end-of
 storage level for the whole of Canadian Treaty Storage of
 ksf^d.

This operation includes:

Expected (*storage/draft*) (*above/below*) the end-of-month DOP TSR level for the whole of Canadian Treaty Storage of
 ksf^d.

- c) **Period Covered by Weekly Treaty Storage Operation Agreement.** The period covered by the agreement shall be from 0800 hours on the Saturday following the date of weekly request to 0800 hours on the Saturday a week later. Changes from the previous week's agreement shall commence at 0800 hours on Saturday, or as soon thereafter as permitted by the limits of VII(B)7.
- d) **Release Determination.** The amount of water released or stored during the period of the Weekly Treaty Operation Storage Agreement will be determined by the changes in reservoir contents based on the recorded lake stage and storage capacity tables for Duncan (Exhibit 13), Arrow (Exhibit 14), and Mica (Exhibit 15). The change in

Arrow storage content will be determined using the recorded lake stage at the gauge near Fauquier, B.C.

- e) **Delivery**. Storage releases will be made effective at the Canadian-United States border. The Weekly Treaty Storage Operation Agreement will be deemed to have been fulfilled if the total amount of storage water agreed to is released from Duncan, Arrow, and Mica reservoirs, provided an amount equal to or greater than the storage water release from Duncan reservoir is concurrently discharged from Kootenay Lake.
 - f) **Modification**. If any modification to a written Weekly Treaty Storage Operation Agreement is agreed by the Operating Committee, a further written Storage Agreement superseding the original will be dispatched immediately by the U.S. Section of the Operating Committee to the Canadian Section of the Operating Committee.
 - g) **Non-routine Operation**. Any special operation which is agreed by the Operating Committee will be suitably documented.
2. **Daily Agreement for Storage Regulation During Flood Control Season**
- a) **Forecasts**. Day-to-day streamflow forecasts will be accomplished by use of computer simulation by the Columbia River Forecasting Service. The regulation center required by the Flood Control Plan for the flood regulation will be located in the North Pacific Division Office, Corps of Engineers, Portland, Oregon.
 - b) **Daily Requests for Project Outflows**. Pursuant to the operating rules in the Flood Control Plan, the outflows from individual Canadian storage projects are specified on a day-to-day basis. Requests will be coordinated by telephone daily or on an as needed basis, by conference calls between members of the Operating Committee or their representatives. The requests will normally prescribe the requested outflows as a mean daily discharge in cubic feet per second, for the 24-hour period from noon to noon of each day. Daily requests for project outflows will be determined by methods as agreed upon, and documented with a confirmation agreement by a message transmitted via the hydromet reporting network or fax from the Corps of Engineers, in Portland, Oregon. Acknowledgment of this agreement will be made by the Canadian Section of the Operating Committee or their representative via the hydromet reporting network or fax. Any modification of the documented daily request shall be agreed by the Operating Committee before being put into effect, and shall be documented immediately using the procedure described above.
3. **Regulation During Winter Floods**. Daily requests for project outflows from Canadian projects are normally implemented in the flood control refill period. During the occurrence of winter floods (periods of high winter flows) in the Lower Columbia River, if a special regulation of Arrow storage becomes necessary to preserve the natural flood control storage effect, then the outflows from Arrow will be regulated on a day-to-day basis by agreement of the Operating Committee in accordance with the requests of the U.S. Section of the Operating Committee. Insofar as possible the outflows from Arrow will not exceed the calculated natural lake outflows until the space obligated for this purpose as shown on

Chart 5 of the Flood Control Operating Plan is filled. The requests for such regulation will be in accordance with procedures described above. If as a result of operation for winter flood control a reservoir ends up above its upper rule curve, then an appropriate outflow schedule for that reservoir will be determined to ensure that the reservoir will be drafted to its upper rule curve as soon as possible.

VI. OPERATING GUIDES

A. Operating Rule Curve

The Operating Rule Curve for the whole of Canadian Storage shall be the sum of the Operating Rule Curves for each of Duncan, Arrow, and Mica. The Operating Rule Curve for each of the Duncan, Arrow, and Mica Reservoirs during the period 1 August 1996 through 31 July 1997 is determined in accordance with the reference documents of Section 1, and is defined as follows:

1. During the period 1 August 1996 through 31 December 1996, it is the higher of the First Critical Rule Curve or the Assured Refill Curve.
2. During the period 1 January 1997 through 31 July 1997 it is the higher of the First Critical Rule Curve or the Assured Refill Curve, unless the Variable Refill Curve is below the higher of the above two curves; then it is defined by the Variable Refill Curve.
3. During the period 1 January 1997 through 31 March 1997 it will not be lower than a Limiting Rule Curve designed to protect firm loads with recurrence of 1936-37 hydro conditions unless a lower reservoir elevation is required for flood control (Exhibit 6).
4. During any period in the 1996-97 Operating Year, it will not be higher than the Upper Rule Curve, defined as the maximum elevation of each reservoir established by flood control requirements and may be modified on mutual agreement for construction and other contingency requirements.
5. Operation of Mica will be in accordance with the monthly average outflows tabulated with specified qualifications under Operating Limits. The obligation to operate Mica to produce optimum benefits in Canada and downstream in the United States will be deemed to have been fulfilled by operating to these criteria.
6. The Variable Refill Curves for Arrow, Duncan and Mica shall be constructed based on the power discharge requirement specified in Exhibit 7.
7.
 - a) The Variable Refill Curve for Arrow will be computed using the Arrow Total Inflow Method, ie., the forecast volume of inflow above the Mica project will be included. The space in Mica to be deducted from the Arrow total inflow will be equal to the amount of storage draft determined by the Operating Rule Curve for Mica as defined in paragraphs VI(A)2 and VI(A)3.
 - b) The Operating Committee may agree to use an alternative procedure for computing the Variable Refill Curve for Arrow, similar, for example, to the Arrow Local method used in previous DOPs. The Arrow Local Method used previously considered whether the projected live Mica storage content at the end of the current month using most likely Mica

inflow and target outflows (expected live Mica storage content) was below the Variable Refill curve for Mica. If the Mica target content was below the VRC, then the forecast volume of inflow for Arrow (reduced by a forecast error such that there is a 95 percent probability that the reduced forecast is equaled or exceeded) excluded the volume of inflow above the Mica project (Arrow local inflow). The total Mica target outflow as specified in VII(C) was added to the Arrow forecast volume in computing water available for refill of Arrow Reservoir.

For the purpose of calculating the rule curve for the whole of Canadian storage, the Variable Refill Curve for Mica was set equal to the expected live Mica Treaty storage content.

The Operating Rule Curve for Libby Reservoir is defined in a manner similar to that for Canadian storage.

B. Rule Curves and Operating Data

1. Assured Refill Curve for Duncan, Arrow, Mica. Exhibit 1
2. First Critical Rule Curve for Duncan, Arrow, Mica, and the whole of Canadian storage. Exhibit 2
3. Second Critical Rule Curve for Duncan, Arrow, Mica, and the whole of Canadian storage. Exhibit 3
4. Third Critical Rule Curve for Duncan, Arrow, Mica, and the whole of Canadian storage. Exhibit 4
5. Fourth Critical Rule Curve for Duncan, Arrow, Mica, and the whole of Canadian storage. Exhibit 5
6. Lower Limit for Operating Rule Curve based on 1936-37 Hydro Conditions. Exhibit 6
7. Variable Refill Curve Procedures. Exhibit 7
8. The First, Second, Third, and Fourth Critical Rule Curves and Assured Refill Curve for Libby. Exhibit 8
9. Coordinated System Loads and Resources Exhibit 9

C. Rule Curves for Future Operating Years

The following tables, including adjustments, have been agreed to by the Entities:

1. Second Critical Rule Curves for Duncan, Arrow, Mica, and the whole of Canadian storage for Operating Year 1997-98. Exhibit 10
2. Third Critical Rule Curves for Duncan, Arrow, Mica, and the whole of Canadian storage for Operating Year 1998-99 Exhibit 11

3. Fourth Critical Rule Curves for Duncan, Arrow, Mica, and the whole Canadian storage for Operating Year 1999-00. Exhibit 12

D. Reservoir Capacity Tables

The following tables shall be considered to be the official storage for the projects:

1. Duncan Reservoir Capacity Table (based on B.C. Hydro table dated 21 February 1973). Exhibit 13
2. Arrow Reservoir Capacity Table (based on B.C. Hydro Combined Storage Table dated 28 February 1974). Exhibit 14
3. Mica Reservoir Capacity Table (based on B.C. Hydro table dated 25 March 1974). Exhibit 15
4. Libby Storage above elevation 2287 feet. Exhibit 16

VII. OPERATING LIMITS

A. Duncan Project

1. Maximum outflow is 20,000 cfs through outlets with the limit of 10,000 cfs each period in the TSR model.
2. Minimum average weekly outflow is 100 cfs.
3. Maximum rate of change in outflow is normally 4,000 cfs per day unless a larger change is necessary to accomplish the objectives of the Flood Control Plan.
4. Normal full pool elevation is 1,892.0 feet.
5. Normal minimum pool elevation is 1,794.2 feet.
6. Normal maximum reservoir draft in elevation during any month is limited to the equivalent of 1 foot per day.

B. Arrow Project

1. Maximum outflow is physical limits only.
2. Minimum average weekly outflow is 5,000 cfs.
3. Maximum rate of change in outflow is normally 15,000 cfs per day unless a larger change is necessary to accomplish the objectives of the Flood Control Plan.
4. Normal full pool elevation is 1,444.0 feet
5. Normal minimum pool elevation is 1,377.9 feet

6. Normal maximum reservoir monthly draft in elevation limited to the equivalent of 1 foot per day
7. Advance notice for changes in outflow for:
 - a) Drop in downstream level of
 - ½ foot - None,
 - 1 foot - 1 hour,
 - 2 feet - 2 hours,
 - 3 feet - 24 hours, and
 - b) Rise in downstream level of
 - ½ foot - None,
 - 1 foot - 1 hour,
 - 2 feet - 2 hours,
 - 3 feet - 7 hours, only if notice is received before 10:00 a.m. that day, otherwise 24-hour notice is required.

C. Mica Project

The Mica Project Treaty storage will be operated according to the Mica Project Operating Criteria shown in the following table except as qualified in subsections VII(C)1 through VII(C)9.

1. Variable Refill Curves. Variable Refill Curves (VRC) shall be constructed based on a power discharge requirement as indicated in Exhibit 7 with 31 July Treaty storage content of 3,529.2 ksfd. However, the Operating Committee may agree to set Mica's VRC July refill target equal to the Mica End of Period Storage Content of 3356.2 ksfd indicated on the following "Mica Project Operating Criteria" table.
2. Mica Project Operating Criteria. Mica project operation will be determined by the End of Previous Period Arrow Storage Content as shown in the following table, except for the limitations or changes required by subsections VII(C)3 through VII(C)9. The End of Previous Period Arrow Storage Content will be determined from the current TSR. Mica's operation will be defined either by a Target End of Period Storage Content or a Target Period Average Outflow.
3. Mica operation to the Target End-of-Period Treaty Storage Contents shall be limited by the Minimum Outflows shown in the following table, and a maximum outflow of 34,000 cfs except as modified in Note 1/ when the Target End-of-Period Storage Content is below 3529.2 ksfd unless needed to accomplish the objectives of the Flood Control Plan.
4. Mica operation to the Target Period Average Outflow shall be limited by the Minimum Target Treaty Content shown in the following table. Mica outflows shall be reduced as required down to a lower limit of the Minimum Outflow shown in the table above, to prevent draft below the Minimum Target Treaty Storage Content. Minimum Outflows may cause the reservoir to draft below the Minimum Target Treaty Content.
5. During July, the Mica operation to the Target Period Average Outflow shall not be less than the outflow necessary to meet the Target End-of-Period Storage Content of 3356.2 ksfd.

Mica Project Operating Criteria

Month	End of Previous Period Arrow Storage Content (KSFD)	Target Operation			Minimum Target Treaty Content at Mica 2/ (KSFD)	Minimum Outflow (CFS)
		Period	Average Outflow (CFS)	End of Period Storage Content 1/ (KSFD)		
August 1-15	3,300 - Full 1,400-3,300 0-1,400	— 27,000 29,000		3,456.2	0.0	10,000
August 16-31	2,400 - Full 1,300-2,400 0-1,300	— 27,000 29,000		3,529.2	0.0	10,000
September	2,500 - Full 800 - 2,500 0- 800	— 27,000 32,000		3,529.2	0.0	10,000
October	3,260 - Full 500 - 3,260 0 - 500	14,000 27,000 32,000			0.0	10,000
November	3,290 - Full 2,900 - 3,290 0 - 2,900	19,000 24,000 32,000		—	0.0	10,000
December	3,200 - Full 2,200 - 3,200 0 - 2,200	23,000 29,000 33,000		—	456.2	15,000
January	2,300 - Full 1,900 - 2,300 0 - 1,900	19,000 29,000 33,000		—	356.2	15,000
February	1,350 - Full 0 - 1,350	20,000 23,000		—	106.2	15,000
March	1,550- Full 950- 1,550 0- 950	22,000 24,000 29,000		—	0.0	15,000
April 1-15	0 - Full			156.2	0.0	15,000
April 16-31	0 - Full			0.0	0.0	13,000
May	0 - Full	10,000		—	0.0	10,000
June	450 - Full 0 - 450	10,000 22,000		—	0.0	10,000
July	2,300 - Full 0 - 2,300	— 27,000		3,356.2	0.0	10,000

Notes:

- 1/ A maximum outflow of 34,000 cfs will apply if the target end-of-period storage content is less than 3529.2 ksfd except in April where a maximum outflow of 33,000 cfs will apply from April 1-15 and a maximum outflow of 27,000 cfs will apply from April 16-30.
- 2/ Mica outflows will be reduced to minimum to maintain the reservoir above the minimum Treaty storage content. This will override any target flow.

6. Mica outflows will be increased during the months October through June as required to avoid violation of the Upper Rule Curve.
7. During the period January through July, if in any month an alternate method to the Arrow Total Inflow Method is used to compute the Variable Refill Curve as defined in Subsection VI(A)7(b), only the Variable Refill Curves based on the Arrow Total Inflow Method continuously from January on will be used to determine if the Arrow contents are within the limits shown in the table above.
8. Each month, within two working days of determination of the final TSR, normally available within the first ten days of the month, one correction to the adjusted Mica outflow may be made, consistent with subsection VII(C)3 above.
9. Storage releases from Mica in excess of 7 million acre-feet (MAF) that result from operating Mica under the criteria described in VII(C)2 through VII(C)8 above will be retained in the Arrow reservoir, subject to flood control criteria at Arrow, and Mica will be reduced to Minimum Outflow as required to minimize releases in excess of 7 MAF. The total combined storage draft from Mica and Arrow will not exceed 14.1 million acre-feet unless flood control criteria will not permit the additional Mica storage releases for minimum flow purposes to be retained at Arrow.

D. Libby Project

1. Maximum Outflow - When the spillway capacity is insufficient to pass the required flow, the regulating outlets may be used.

Forebay Elevation	One Sluice	Three Sluices
2459 ft.	20,300 cfs	61,000 cfs
2425 ft.	19,000 cfs	57,000 cfs
2405 ft.	18,200 cfs	54,600 cfs
2350 ft.	15,500 cfs	46,500 cfs
2287 ft.	11,700 cfs	35,000 cfs

2. Minimum instantaneous outflow is 2,000 cfs and the normal minimum daily outflow is 4,000 cfs.
3. Maximum rate of tailwater change
 - a) May - September - 1 ft. per hour
4 ft. per 24 hours
 - b) October - April - 1 ft. per $\frac{1}{2}$ hour
6 ft. per 24 hours
4. Maximum CRC elevation - 2459.0 feet
5. Minimum CRC elevation - 2363.0 feet in December only
2287.0 feet in all other months

Exhibit 1 - Assured Refill Curves 1/

Month	DUNCAN						MICA						ARROW									
	1931		PDR	Water Available		ARC	1931		PDR	Water Available		CRC1	ARC	1931		PDR	Water Available		MICA	Refill	ARC	
	Inflow	CFS		for Refill	CFS		Inflow	CFS		for Refill	CFS			Inflow	CFS		for Refill	CFS	KSFD			
	3/	4/		2/																		
July	7320	3000	4320	133.9	705.8	56477	23000	33480	1037.9	2785.6	3529.2	88586	40000	48590	1506.3	1037.9	3579.6					
June	8030	2000	6030	180.9	571.9	60178	22000	38180	1145.4	1799.1	2491.3	114636	40000	74640	2239.2	1145.4	3111.2					
May	5170	1000	4170	129.3	391.0	28058	22000	6060	187.9	151.5	1345.9	68098	40000	28100	871.1	187.9	2017.4					
Apr2	981	1000	-20	-0.3	261.7	7217	22000	-14780	-221.7	0.0	1158.1	20504	25000	-4500	-67.5	-221.7	1334.2					
Apr1	981	400	580	8.7	262.0	4679	22000	-17320	-259.8	0.0	1379.8	10700	25000	-14300	-214.5	-259.8	1180.0					
Mar	555	400	160	5.0	253.3	3219	20000	-16780	-520.2	205.8	1639.6	7653	5000	2650	82.2	-520.2	1134.7					
Feb	428	400	30	0.8	248.4	2593	20000	-17410	-487.5	1096.6	2159.7	5813	5000	810	22.7	-487.5	532.3					
Jan	428	100	330	10.2	247.5	2834	3000	-170	-5.3	1836.3	2647.2	6430	5000	1430	44.3	-5.3	22.2					
Dec	461	100	360	11.2	237.3	3531	3000	530	16.4	2565.5	2652.5	6694	5000	1690	52.4	-268.9	0.0					
Nov	684	100	580	17.4	226.1	5176	3000	2180	65.4	2921.4	2636.1	9483	5000	4480	134.4	-286.3	0.0					
Oct	1090	100	990	30.7	208.7	8751	3000	5750	178.3	3207.7	2570.7	14691	5000	9690	300.4	-172.9	0.0					
Sep	2310	100	2210	66.3	178.0	23110	3000	20110	603.3	3380.6	2392.4	39739	5000	34740	1042.2	-148.6	0.0					
Aug2	4530	100	4430	70.9	111.7	38261	3000	35260	564.2	3529.2	1788.1	62605	5000	57610	921.8	0.0	0.0					
Aug1	4530	100	4430	66.5	40.9	53542	3000	50540	758.1	3529.2	1225.0	82249	5000	77250	1158.8	0.0	0.0					

Notes:

- 1/ The Assured Refill Curve indicates the end-of-month storage content required to assure refill of Canadian storage by 31 July based on 1931 historical monthly inflow. The monthly inflow at each reservoir is reduced by deducting the Power Discharge Requirements and water required for refill, if any, at upstream reservoirs. The Entities may agree to revise the data upon the completion of the Refill Study by the Operating Committee.
- 2/ Upstream refill requirement: these values are computed by subtracting current month from previous month's higher of Mica's ARC or CRC1 except July value is Mica full minus previous month's higher of Mica's ARC or CRC1. CRC1 is shown in Exhibit 2.
- 3/ Inflows are from 1990 Level Modified streamflow (Hydrosim file).
- 4/ PDRs are form 1996-97 AOP study.

Exhibit 2 - First Critical Rule Curves

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	705.8	3579.6	3529.2	7814.6
August 31	705.8	3579.6	3529.2	7814.6
September	669.6	3521.1	3380.6	7571.3
October	595.0	3314.3	3207.7	7117.0
November	510.0	2901.5	2921.4	6332.9
December	380.0	2185.7	2565.5	5131.2
January	362.0	1111.6	1836.3	3309.9
February	200.0	725.7	1096.6	2022.3
March	93.0	672.9	205.8	971.7
April 15	77.0	43.3	0.0	120.3
April 30	85.3	20.5	0.0	105.8
May	202.8	1082.4	151.5	1436.7
June	477.6	2626.8	1799.1	4903.5
July	664.5	3335.9	2785.6	6786.0

Source: First-year critical rule curves from the AOP 1996-97.

Exhibit 3 - Second Critical Rule Curves

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	690.0	3354.9	3243.8	7288.7
August 31	680.0	3350.2	3301.2	7331.4
September	665.0	3146.8	3122.2	6934.0
October	570.0	2646.2	2795.5	6011.7
November	490.0	1925.2	2100.0	4515.2
December	370.0	1554.7	1786.2	3710.9
January	290.0	650.0	778.2	1718.2
February	100.0	198.6	442.7	741.3
March	81.0	1.2	0.0	82.2
April 15	64.0	0.0	0.0	64.0
April 30	54.0	20.5	0.0	74.5
May	168.0	698.4	84.9	951.3
June	385.0	1990.5	1360.5	3736.0
July	540.0	2999.8	2541.7	6081.5

Adjusted for Cross-over

Source: The 1996-97 second-year critical rule curves from the 1995-96 DOP unless higher than the first year critical rule curve.

Exhibit 4 - Third Critical Rule Curves

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	545.0	3219.7	2811.8	6576.5
August 31	560.0	3166.2	2976.3	6702.5
September	540.0	3108.8	2901.5	6550.3
October	420.0	2612.1	2589.5	5621.6
November	280.0	1925.2	1975.6	4180.8
December	200.0	1397.8	1409.5	3007.3
January	160.0	600.0	668.3	1428.3
February	60.0	147.4	0.0	207.4
March	61.0	0.7	0.0	61.7
April 15	11.0	0.0	0.0	11.0
April 30	4.0	20.5	0.0	24.5
May	161.2	532.5	0.0	693.7
June	384.0	1468.3	894.2	2746.5
July	480.0	1688.4	1626.7	3795.1

Adjusted for Cross-over

Adjusted from PNCG 6(d) meeting for the 1994-95 DOP

Source: The 1996-97 third-year critical rule curves from the 1994-95 DOP unless higher than the first or second year critical rule curves.

Exhibit 5 - Fourth Critical Rule Curves

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	470.0	1716.7	1645.9	3832.6
August 31	500.0	1500.0	1613.3	3613.3
September	403.0	1587.3	1149.0	3139.3
October	325.0	1278.8	720.2	2324.0
November	180.0	1152.3	75.6	1407.9
December	20.0	466.6	0.0	486.6
January	0.0	161.0	0.0	161.0
February	0.0	0.0	0.0	0.0

Source: The 1996-97 fourth-year critical rule curves from the 1993-94 DOP unless higher than the first, second, or third year critical rule curves.

Exhibit 6 - Lower Limit for Operating Rule Curve

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Libby</u>
January	1.2	1536.1	998.0	12.7
February	0.0	712.6	360.6	0.0
March	0.0	65.8	12.5	0.0

Source: ECC Lower Limits for Duncan, Arrow, Mica and Libby are from 1996-97 AOP.

Exhibit 7 - Variable Refill Curve Procedures

The Variable Refill Curves (VRC) indicate the end-of-month storage content required to refill Canadian storage based on forecasts of natural inflow volume. The probable forecast volume at each reservoir is reduced by deducting the 95 percent confidence forecast error, Power Discharge Requirements (PDR), and water required for refill at upstream reservoirs. The 1996-97 AOP studies made for the U.S. Coordinated System operation indicate that the PDR's for all cyclic reservoirs must be greater than project minimum release to allow filling in accordance with the Principles and Procedures coincident with carrying system firm load when the Columbia River at The Dalles natural January-July runoff volume is lower than 95 million acre-feet. The following schedule for PDR's will apply when computing the VRC's during the period January 1 through June 1, unless the Operating Committee agrees to updated study results.

**POWER DISCHARGE REQUIREMENT, IN CFS
FOR JANUARY-JULY VOLUME RUNOFF
OF THE COLUMBIA RIVER AT THE DALLES, OREGON**

Project	Jan	Feb	Mar	Ap1	Ap2	May	Jun	Jul
Mica PDRs								
ARC	3000	20000	20000	22000	22000	22000	22000	23000
80 MAF	3000	3000	3000	22000	22000	25000	27000	27000
95 MAF	3000	3000	3000	3000	10000	10000	20000	25000
110 MAF	3000	3000	3000	3000	3000	3000	10000	10000
Arrow PDRs								
ARC	5000	5000	5000	25000	25000	40000	40000	40000
80 MAF	5000	5000	5000	25000	25000	40000	45000	45000
95 MAF	5000	5000	5000	5000	5000	5000	34000	34000
110 MAF	5000	5000	5000	5000	5000	5000	30000	30000
Duncan PDRs								
ARC	100	400	400	400	1000	1000	2000	3000
80 MAF	100	400	400	400	2000	2000	2000	2000
95 MAF	100	100	100	100	100	100	100	100
110 MAF	100	100	100	100	100	100	100	100
Libby PDRs								
ARC	4000	4000	4000	4000	4000	4000	4000	4000
80 MAF	4000	4000	4000	4000	4000	4000	4000	4000
95 MAF	4000	4000	4000	4000	4000	4000	4000	4000
110 MAF	4000	4000	4000	4000	4000	4000	4000	4000

Notes:

- (1) If the forecasted natural January through July volume runoff at The Dalles is less than 80 MAF, the Power Discharge Requirement in the 80 MAF schedule will be used. For intermediate forecasted volumes, the Power Discharge Requirement will be interpolated linearly between the values shown above.
- (2) Data is from 1996-97 AOP for Canadian projects and from 1995-96 PNCA Refill Study for Libby. Data may be revised upon completion of the Operating Committee Refill Studies. The Canadian Entity reserves the right to request changes to the revised data.

Exhibit 8 - Libby Critical and Assured Refill Curves (1)

(End-of-Month Usable Storage Content in 1000 SFD)

Rule Curves previously agreed to by the Entities (2)					Rule Curves proposed by U.S. Entity (3)		
Month	Critical Rule Curves (CRCs)				Assured Refill Curve (4)	CRCs	
	1st	2nd	3rd	4th		1st	2nd
August 15	2510.5	2502.4	2046.6**	1252.7	1471.2	2046.6	N/A
August 31	2510.5	2507.9	2060.8**	1242.2	1519.8	2060.8	N/A
September	2477.0	2477.0	1843.3	1061.0	1555.2	1922.1	N/A
October	2398.2	2398.2	1814.8	1031.3	1552.1	1891.7	N/A
November	2164.0	2056.6	1528.8	967.1	1523.9	1840.3	N/A
December	1502.2	1500.9	808.2	775.9	1473.4	1502.2	N/A
January	1446.0	1384.0	399.1	324.4	1422.9	1430.6	N/A
February	1390.0	1159.4	336.9	0	1371.1	1373.2	N/A
March	1300.0	937.9	252.7	0	1318.7	1314.8	N/A
April 15	1149.8	952.2	179.9	0	1304.4	1295.5	N/A
April 30	1074.6	917.2	113.6	0	1301.7	1265.4	N/A
May	1524.4	1357.8	570.3	0	1755.9	1546.6	N/A
June	2396.9	2165.4	949.2	0	2301.9	1597.3	N/A
July	2509.2	2509.2	1160.2	0	2510.5	1830.3	N/A
Source	1996-97 AOP (1st yr)	1995-96 AOP (2nd yr)	1994-95 PNCA FR (oy97)	1993-94 PNCA FR (oy97)	1995-96 PNCA FR	1996-97 PNCA FR	1995-96 PNCA FR

Adjusted for Cross-over

**Adjusted for Cross-over to the rule curve proposed by U.S. Entity

Notes:

1 Two sets of Libby Critical Rule Curves (CRC1 & 2) are shown. The Canadian Entity considers the Rule Curves previously agreed to by the Entities to be the appropriated rule curves to be used in the determination of the Libby project operation. The Rule Curve proposed by the U.S. Entity are modified rule curves which the U.S. considers appropriate to use factoring in all power and non-power obligations, but which the Canadian Entity has not, and does not agree are appropriate to use to determine the Libby project operation.

2 The Rule Curve previously agreed to by the Entities are those rule curves contained in the Assured Operating Plan, or subsequent PNCA critical period regulations that where consistent with the Detailed Operating Plans, as indicated in the table under Source, and have been agreed to by the Entities in specific Entity agreements. The US Entity does not agree that it is obligated to use these rule curves to determine the Libby project operation.

3 The Rule Curves proposed by the U.S. Entity are those rule curves which the operators of the Libby project, the U.S. Army Corps of Engineers (ACE), North Pacific Division, considers appropriate to use factoring in all power and non-power obligations, and which the U.S. Entity therefore proposed to use in the determination of the Libby project operation, but which the Canadian Entity has not, and does not agree are appropriate to use to determine the Libby project operation.

Exhibit 9 - Coordinated System Loads and Resources used in the TSR

(Energy in average MW)

LOADS		RESOURCES						Regulated Hydro Load
Period	Total	Hydro	Imports	Thermal	Combst.	Misc.	Total	
Loads 1/	Indep. 2/		3/ (large & small)		Turbine			
August 15	20133	1127	1394	5460.0	983.0	1101	10065	10068.0
August 31	20050	1102	1387	5460.0	876.0	1101	9926	10124.0
September	19552	988	1187	5460.0	805.0	1101	9541	10011.0
October	19963	992	1210	5323.0	845.0	1110	9480	10483.0
November	21935	1094	1771	5377.0	954.0	1107	10303	11632.0
December	23423	1252	2055	5466.0	1006.0	1105	10884	12539.0
January	23953	1144	2098	5466.0	1009.0	1115	10832	13121.0
February	22875	928	2025	5466.0	1006.0	1112	10537	12338.0
March	21617	1135	1502	5000.0	830.0	1113	9580	12037.0
April 15	20493	1282	1200	3278.0	829.0	1090	7679	12814.0
April 30	20591	1329	1072	1917.0	888.0	1050	6256	14335.0
May	22809	1532	943	2890.0	972.0	752	7089	15720.0
June	20333	1504	1286	4253.0	988.0	943	8974	11359.0
July	20447	1156	1409	5268.0	983.0	1097	9913	10534.0

Note:

- 1/ The total loads as the sum of PNW Area load, firm exports, maintenance, and firm surplus.
 2/ Based on the 40 year average instead of 50 year average due to the double counting of hydro independent resources in the last 10 years of the 50 years data used in the AOP97 study. The average hydro independent generation is used in the DOP AER because the actual values are not known until after the DOP AER is completed.

3/ Imports include 143.5 average annual MW of seasonal exchanges.

Source: Loads and resources are from 1996-97 AOP DDPB Document, Table 1.

Exhibit 10 - Second Critical Rule Curves for OY 97-98

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	566.5	3496.0	3042.2	7104.7
August 31	614.6	3250.2	3085.5	6950.3
September	471.2	3280.1	3085.5	6836.8
October	282.0	2777.9	3099.2	6159.1
November	227.4	2425.6	2172.5	4825.5
December	197.2	1917.8	1759.9	3874.9
January	60.0	1042.5	902.1	2004.6
February	59.0	197.5	644.0	900.5
March	0.0	6.5	144.9	151.4
April 15	0.0	6.6	0.0	6.6
April 30	0.0	376.4	39.5	415.9
May	107.9	622.1	456.2	1186.2
June	212.4	1369.9	1537.4	3119.7
July	335.0	2784.9	2753.9	5873.8

Source: These rule curves are from 1997-98 2nd year AOP study.

Exhibit 11 - Third Critical Rule Curves for OY 98-99

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	259.3	2987.7	3074.5	6321.5
August 31	173.1	3171.5	3194.9	6539.5
September	217.3	3120.5	3184.3	6522.1
October	41.4	2738.2	2955.4	5735.0
November	30.0	2660.0	2347.2	5037.2
December	40.6	1747.1	1594.6	3382.3
January	45.0	1093.5	803.2	1941.7
February	48.0	103.6	282.0	433.6
March	38.0	174.5	288.8	501.3
April 15	40.0	17.5	0.0	57.5
April 30	40.0	13.6	0.4	54.0
May	80.0	446.4	0.0	526.4
June	122.0	1376.6	411.2	1909.8
July	200.0	1196.4	1606.7	3003.1

Source: These rule curves are from 1998-99 3rd year AOP study.

Exhibit 12 - Fourth Critical Rule Curves for OY 99-00

(End-of-Month Usable Storage Content in 1000 SFD)

<u>Month</u>	<u>Duncan</u>	<u>Arrow</u>	<u>Mica</u>	<u>Total</u>
August 15	183.0	1057.4	2122.2	3362.6
August 31	108.9	979.6	2110.0	3198.5
September	170.0	1124.0	1611.8	2905.8
October	60.0	1264.4	816.4	2140.8
November	53.0	783.9	348.3	1185.2
December	1.0	239.0	39.3	279.3
January	0.0	0.0	0.0	0.0
February	0.0	0.0	0.0	0.0
March	0.0	0.0	0.0	0.0
April 15	0.0	0.0	0.0	0.0
April 30	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0
June	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0

Source: These rule curves are from 1999-00 4th year AOP study.

Detailed Operating Plan for 1996-97

Exhibit 13 - DUNCAN RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
1892.	705.8										
1891.	696.9	697.8	698.7	699.6	700.5	701.3	702.2	703.1	704.0	704.9	0.89
1890.	688.0	688.9	689.8	690.7	691.6	692.4	693.3	694.2	695.1	696.0	0.89
1889.	679.2	680.1	681.0	681.8	682.7	683.6	684.5	685.4	686.2	687.1	0.88
1888.	670.4	671.3	672.2	673.0	673.9	674.8	675.7	676.6	677.4	678.3	0.88
1887.	661.5	662.4	663.3	664.2	665.1	665.9	666.8	667.7	668.6	669.5	0.89
1886.	652.8	653.7	654.5	655.4	656.3	657.1	658.0	658.9	659.8	660.6	0.87
1885.	644.0	644.9	645.8	646.6	647.5	648.4	649.3	650.2	651.0	651.9	0.88
1884.	635.3	636.2	637.0	637.9	638.8	639.6	640.5	641.4	642.3	643.1	0.87
1883.	626.6	627.5	628.3	629.2	630.1	630.9	631.8	632.7	633.6	634.4	0.87
1882.	617.9	618.8	619.6	620.5	621.4	622.2	623.1	624.0	624.9	625.7	0.87
1881.	609.2	610.1	610.9	611.8	612.7	613.5	614.4	615.3	616.2	617.0	0.87
1880.	600.6	601.5	602.3	603.2	604.0	604.9	605.8	606.6	607.5	608.3	0.86
1879.	592.0	592.9	593.7	594.6	595.4	596.3	597.2	598.0	598.9	599.7	0.86
1878.	583.4	584.3	585.1	586.0	586.8	587.7	588.6	589.4	590.3	591.1	0.86
1877.	574.8	575.7	576.5	577.4	578.2	579.1	580.0	580.8	581.7	582.5	0.86
1876.	566.3	567.1	568.0	568.8	569.7	570.5	571.4	572.2	573.1	573.9	0.85
1875.	557.8	558.6	559.5	560.3	561.2	562.0	562.9	563.7	564.6	565.4	0.85
1874.	549.3	550.1	551.0	551.8	552.7	553.5	554.4	555.2	556.1	556.9	0.85
1873.	540.9	541.7	542.6	543.4	544.3	545.1	545.9	546.8	547.6	548.5	0.84
1872.	532.4	533.2	534.1	534.9	535.8	536.6	537.5	538.3	539.2	540.0	0.85
1871.	524.0	524.8	525.7	526.5	527.4	528.2	529.0	529.9	530.7	531.6	0.84
1870.	515.7	516.5	517.4	518.2	519.0	519.8	520.7	521.5	522.3	523.2	0.83

Detailed Operating Plan for 1996-97

Exhibit 13 - DUNCAN RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
1869.	507.3	508.1	509.0	509.8	510.7	511.5	512.3	513.2	514.0	514.9	0.84
1868.	499.0	499.8	500.7	501.5	502.3	503.1	504.0	504.8	505.6	506.5	0.83
1867.	490.7	491.5	492.4	493.2	494.0	494.8	495.7	496.5	497.3	498.2	0.83
1866.	482.4	483.2	484.1	484.9	485.7	486.5	487.4	488.2	489.0	489.9	0.83
1865.	474.2	475.0	475.8	476.7	477.5	478.3	479.1	479.9	480.8	481.6	0.82
1864.	466.0	466.8	467.6	468.5	469.3	470.1	470.9	471.7	472.6	473.4	0.82
1863.	457.8	458.6	459.4	460.3	461.1	461.9	462.7	463.5	464.4	465.2	0.82
1862.	449.7	450.5	451.3	452.1	452.9	453.7	454.6	455.4	456.2	457.0	0.81
1861.	441.6	442.4	443.2	444.0	444.8	445.6	446.5	447.3	448.1	448.9	0.81
1860.	433.5	434.3	435.1	435.9	436.7	437.5	438.4	439.2	440.0	440.8	0.81
1859.	425.4	426.2	427.0	427.8	428.6	429.4	430.3	431.1	431.9	432.7	0.81
1858.	417.4	418.2	419.0	419.8	420.6	421.4	422.2	423.0	423.8	424.6	0.80
1857.	409.4	410.2	411.0	411.8	412.6	413.4	414.2	415.0	415.8	416.6	0.80
1856.	401.4	402.2	403.0	403.8	404.6	405.4	406.2	407.0	407.8	408.6	0.80
1855.	393.5	394.3	395.1	395.9	396.7	397.4	398.2	399.0	399.8	400.6	0.79
1854.	385.6	386.4	387.2	388.0	388.8	389.5	390.3	391.1	391.9	392.7	0.79
1853.	377.7	378.5	379.3	380.1	380.9	381.6	382.4	383.2	384.0	384.8	0.79
1852.	369.9	370.7	371.5	372.2	373.0	373.8	374.6	375.4	376.1	376.9	0.78
1851.	362.1	362.9	363.7	364.4	365.2	366.0	366.8	367.6	368.3	369.1	0.78
1850.	354.3	355.1	355.9	356.6	357.4	358.2	359.0	359.8	360.5	361.3	0.78
1849.	346.6	347.4	348.1	348.9	349.7	350.4	351.2	352.0	352.8	353.5	0.77
1848.	338.9	339.7	340.4	341.2	342.0	342.7	343.5	344.3	345.1	345.8	0.77
1847.	331.2	332.0	332.7	333.5	334.3	335.0	335.8	336.6	337.4	338.1	0.77
1846.	323.6	324.4	325.1	325.9	326.6	327.4	328.2	328.9	329.7	330.4	0.76
1845.	316.0	316.8	317.5	318.3	319.0	319.8	320.6	321.3	322.1	322.8	0.76

Detailed Operating Plan for 1996-97

Exhibit 13 - DUNCAN RESERVOIR CAPACITY TABLE

ELEVATION IN FEET											AVERAGE DIFFERENCE PER TENTH FT
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
1844.	308.5	309.2	310.0	310.7	311.5	312.2	313.0	313.7	314.5	315.2	0.75
1843.	300.9	301.7	302.4	303.2	303.9	304.7	305.5	306.2	307.0	307.7	0.76
1842.	293.5	294.2	295.0	295.7	296.5	297.2	297.9	298.7	299.4	300.2	0.74
1841.	286.0	286.7	287.5	288.2	289.0	289.7	290.5	291.2	292.0	292.7	0.75
1840.	278.6	279.3	280.1	280.8	281.6	282.3	283.0	283.8	284.5	285.3	0.74
1839.	271.2	271.9	272.7	273.4	274.2	274.9	275.6	276.4	277.1	277.9	0.74
1838.	263.9	264.6	265.4	266.1	266.8	267.5	268.3	269.0	269.7	270.5	0.73
1837.	256.6	257.3	258.1	258.8	259.5	260.2	261.0	261.7	262.4	263.2	0.73
1836.	249.4	250.1	250.8	251.6	252.3	253.0	253.7	254.4	255.2	255.9	0.72
1835.	242.2	242.9	243.6	244.4	245.1	245.8	246.5	247.2	248.0	248.7	0.72
1834.	235.0	235.7	236.4	237.2	237.9	238.6	239.3	240.0	240.8	241.5	0.72
1833.	227.9	228.6	229.3	230.0	230.7	231.4	232.2	232.9	233.6	234.3	0.71
1832.	220.8	221.5	222.2	222.9	223.6	224.3	225.1	225.8	226.5	227.2	0.71
1831.	213.8	214.5	215.2	215.9	216.6	217.3	218.0	218.7	219.4	220.1	0.70
1830.	206.8	207.5	208.2	208.9	209.6	210.3	211.0	211.7	212.4	213.1	0.70
1829.	199.9	200.6	201.3	202.0	202.7	203.3	204.0	204.7	205.4	206.1	0.69
1828.	193.0	193.7	194.4	195.1	195.8	196.4	197.1	197.8	198.5	199.2	0.69
1827.	186.1	186.8	187.5	188.2	188.9	189.5	190.2	190.9	191.6	192.3	0.69
1826.	179.3	180.0	180.7	181.3	182.0	182.7	183.4	184.1	184.7	185.4	0.68
1825.	172.6	173.3	173.9	174.6	175.3	175.9	176.6	177.3	178.0	178.6	0.67
1824.	165.9	166.6	167.2	167.9	168.6	169.2	169.9	170.6	171.3	171.9	0.67
1823.	159.2	159.9	160.5	161.2	161.9	162.5	163.2	163.9	164.6	165.2	0.67
1822.	152.6	153.3	153.9	154.6	155.2	155.9	156.6	157.2	157.9	158.5	0.66
1821.	146.1	146.7	147.4	148.0	148.7	149.3	150.0	150.6	151.3	151.9	0.65
1820.	139.6	140.2	140.9	141.5	142.2	142.8	143.5	144.1	144.8	145.4	0.65

Detailed Operating Plan for 1996-97

Exhibit 13 - DUNCAN RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
1819.	133.2	133.8	134.5	135.1	135.8	136.4	137.0	137.7	138.3	139.0	0.64
1818.	126.8	127.4	128.1	128.7	129.4	130.0	130.6	131.3	131.9	132.6	0.64
1817.	120.5	121.1	121.8	122.4	123.0	123.6	124.3	124.9	125.5	126.2	0.63
1816.	114.3	114.9	115.5	116.2	116.8	117.4	118.0	118.6	119.3	119.9	0.62
1815.	108.1	108.7	109.3	110.0	110.6	111.2	111.8	112.4	113.1	113.7	0.62
1814.	102.0	102.6	103.2	103.8	104.4	105.0	105.7	106.3	106.9	107.5	0.61
1813.	96.0	96.6	97.2	97.8	98.4	99.0	99.6	100.2	100.8	101.4	0.60
1812.	90.0	90.6	91.2	91.8	92.4	93.0	93.6	94.2	94.8	95.4	0.60
1811.	84.1	84.7	85.3	85.9	86.5	87.0	87.6	88.2	88.8	89.4	0.59
1810.	78.3	78.9	79.5	80.0	80.6	81.2	81.8	82.4	82.9	83.5	0.58
1809.	72.5	73.1	73.7	74.2	74.8	75.4	76.0	76.6	77.1	77.7	0.58
1808.	66.9	67.5	68.0	68.6	69.1	69.7	70.3	70.8	71.4	71.9	0.56
1807.	61.3	61.9	62.4	63.0	63.5	64.1	64.7	65.2	65.8	66.3	0.56
1806.	55.8	56.3	56.9	57.4	58.0	58.5	59.1	59.6	60.2	60.7	0.55
1805.	50.4	50.9	51.5	52.0	52.6	53.1	53.6	54.2	54.7	55.3	0.54
1804.	45.1	45.6	46.2	46.7	47.2	47.7	48.3	48.8	49.3	49.9	0.53
1803.	39.9	40.4	40.9	41.5	42.0	42.5	43.0	43.5	44.1	44.6	0.52
1802.	34.8	35.3	35.8	36.3	36.8	37.3	37.9	38.4	38.9	39.4	0.51
1801.	29.8	30.3	30.8	31.3	31.8	32.3	32.8	33.3	33.8	34.3	0.50
1800.	25.0	25.5	26.0	26.4	26.9	27.4	27.9	28.4	28.8	29.3	0.48
1799.	20.3	20.8	21.2	21.7	22.2	22.6	23.1	23.6	24.1	24.5	0.47
1798.	15.7	16.2	16.6	17.1	17.5	18.0	18.5	18.9	19.4	19.8	0.46
1797.	11.3	11.7	12.2	12.6	13.1	13.5	13.9	14.4	14.8	15.3	0.44
1796.	7.1	7.5	7.9	8.4	8.8	9.2	9.6	10.0	10.5	10.9	0.42
1795.	3.0	3.4	3.8	4.2	4.6	5.0	5.5	5.9	6.3	6.7	0.41
1794.			0.0	0.4	0.8	1.1	1.5	1.9	2.3	2.6	0.37

Detailed Operating Plan for 1996-97

Exhibit 14 - ARROW RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
1444.	3579.6										
1443.	3514.1	3520.6	3527.2	3533.7	3540.3	3546.8	3553.4	3559.9	3566.5	3573.0	6.55
1442.	3448.9	3455.4	3461.9	3468.5	3475.0	3481.5	3488.0	3494.5	3501.1	3507.6	6.52
1441.	3384.0	3390.5	3397.0	3403.5	3410.0	3416.4	3422.9	3429.4	3435.9	3442.4	6.49
1440.	3319.5	3325.9	3332.4	3338.8	3345.3	3351.7	3358.2	3364.6	3371.1	3377.5	6.45
1439.	3255.2	3261.6	3268.1	3274.5	3280.9	3287.3	3293.8	3300.2	3306.6	3313.1	6.43
1438.	3191.4	3197.8	3204.2	3210.5	3216.9	3223.3	3229.7	3236.1	3242.4	3248.8	6.38
1437.	3127.8	3134.2	3140.5	3146.9	3153.2	3159.6	3166.0	3172.3	3178.7	3185.0	6.36
1436.	3064.6	3070.9	3077.2	3083.6	3089.9	3096.2	3102.5	3108.8	3115.2	3121.5	6.32
1435.	3001.7	3008.0	3014.3	3020.6	3026.9	3033.1	3039.4	3045.7	3052.0	3058.3	6.29
1434.	2939.2	2945.4	2951.7	2957.9	2964.2	2970.4	2976.7	2982.9	2989.2	2995.4	6.25
1433.	2877.0	2883.2	2889.4	2895.7	2901.9	2908.1	2914.3	2920.5	2926.8	2933.0	6.22
1432.	2815.1	2821.3	2827.5	2833.7	2839.9	2846.0	2852.2	2858.4	2864.6	2870.8	6.19
1431.	2753.5	2759.7	2765.8	2772.0	2778.1	2784.3	2790.5	2796.6	2802.8	2808.9	6.16
1430.	2692.3	2698.4	2704.5	2710.7	2716.8	2722.9	2729.0	2735.1	2741.3	2747.4	6.12
1429.	2631.5	2637.6	2643.7	2649.7	2655.8	2661.9	2668.0	2674.1	2680.1	2686.2	6.08
1428.	2570.9	2577.0	2583.0	2589.1	2595.1	2601.2	2607.3	2613.3	2619.4	2625.4	6.06
1427.	2510.7	2516.7	2522.7	2528.8	2534.8	2540.8	2546.8	2552.8	2558.9	2564.9	6.02
1426.	2450.8	2456.8	2462.8	2468.8	2474.8	2480.7	2486.7	2492.7	2498.7	2504.7	5.99
1425.	2391.2	2397.2	2403.1	2409.1	2415.0	2421.0	2427.0	2432.9	2438.9	2444.8	5.96
1424.	2331.9	2337.8	2343.8	2349.7	2355.6	2361.5	2367.5	2373.4	2379.3	2385.3	5.93
1423.	2272.8	2278.7	2284.6	2290.5	2296.4	2302.3	2308.3	2314.2	2320.1	2326.0	5.91
1422.	2214.1	2220.0	2225.8	2231.7	2237.6	2243.4	2249.3	2255.2	2261.1	2266.9	5.87
1421.	2155.7	2161.5	2167.4	2173.2	2179.1	2184.9	2190.7	2196.6	2202.4	2208.3	5.84
1420.	2097.7	2103.5	2109.3	2115.1	2120.9	2126.7	2132.5	2138.3	2144.1	2149.9	5.80

Detailed Operating Plan for 1996-97

Exhibit 14 - ARROW RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	DIFFERENCE PER TENTH FT
1419.	2040.1	2045.9	2051.6	2057.4	2063.1	2068.9	2074.7	2080.4	2086.2	2091.9	5.76
1418.	1982.9	1988.6	1994.3	2000.1	2005.8	2011.5	2017.2	2022.9	2028.7	2034.4	5.72
1417.	1926.1	1931.8	1937.5	1943.1	1948.8	1954.5	1960.2	1965.9	1971.5	1977.2	5.68
1416.	1869.6	1875.2	1880.9	1886.5	1892.2	1897.8	1903.5	1909.1	1914.8	1920.4	5.65
1415.	1813.5	1819.1	1824.7	1830.3	1835.9	1841.5	1847.2	1852.8	1858.4	1864.0	5.61
1414.	1757.8	1763.4	1768.9	1774.5	1780.1	1785.6	1791.2	1796.8	1802.4	1807.9	5.57
1413.	1702.4	1707.9	1713.5	1719.0	1724.6	1730.1	1735.6	1741.2	1746.7	1752.3	5.54
1412.	1647.4	1652.9	1658.4	1663.9	1669.4	1674.9	1680.4	1685.9	1691.4	1696.9	5.50
1411.	1592.7	1598.2	1603.6	1609.1	1614.6	1620.0	1625.5	1631.0	1636.5	1641.9	5.47
1410.	1538.4	1543.8	1549.3	1554.7	1560.1	1565.5	1571.0	1576.4	1581.8	1587.3	5.43
1409.	1484.5	1489.9	1495.3	1500.7	1506.1	1511.4	1516.8	1522.2	1527.6	1533.0	5.39
1408.	1430.9	1436.3	1441.6	1447.0	1452.3	1457.7	1463.1	1468.4	1473.8	1479.1	5.36
1407.	1377.7	1383.0	1388.3	1393.7	1399.0	1404.3	1409.6	1414.9	1420.3	1425.6	5.32
1406.	1324.7	1330.0	1335.3	1340.6	1345.9	1351.2	1356.5	1361.8	1367.1	1372.4	5.30
1405.	1272.1	1277.4	1282.6	1287.9	1293.1	1298.4	1303.7	1308.9	1314.2	1319.4	5.26
1404.	1219.5	1224.8	1230.0	1235.3	1240.5	1245.8	1251.1	1256.3	1261.6	1266.8	5.26
1403.	1167.3	1172.5	1177.7	1183.0	1188.2	1193.4	1198.6	1203.8	1209.1	1214.3	5.22
1402.	1115.4	1120.6	1125.8	1131.0	1136.2	1141.3	1146.5	1151.7	1156.9	1162.1	5.19
1401.	1063.9	1069.0	1074.2	1079.3	1084.5	1089.6	1094.8	1099.9	1105.1	1110.2	5.15
1400.	1012.8	1017.9	1023.0	1028.1	1033.2	1038.3	1043.5	1048.6	1053.7	1058.8	5.11
1399.	962.5	967.5	972.6	977.6	982.6	987.6	992.7	997.7	1002.7	1007.8	5.03
1398.	912.7	917.7	922.7	927.6	932.6	937.6	942.6	947.6	952.5	957.5	4.98
1397.	863.2	868.1	873.1	878.0	883.0	887.9	892.9	897.8	902.8	907.7	4.95
1396.	814.1	819.0	823.9	828.8	833.7	838.6	843.6	848.5	853.4	858.3	4.91
1395.	765.2	770.1	775.0	779.9	784.8	789.6	794.5	799.4	804.3	809.2	4.89

Detailed Operating Plan for 1996-97

Exhibit 14 - ARROW RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	DIFFERENCE PER TENTH FT
1394.	716.2	721.1	726.0	730.9	735.8	740.7	745.6	750.5	755.4	760.3	4.90
1393.	667.5	672.4	677.2	682.1	687.0	691.8	696.7	701.6	706.5	711.3	4.87
1392.	619.3	624.1	628.9	633.8	638.6	643.4	648.2	653.0	657.9	662.7	4.82
1391.	571.5	576.3	581.1	585.8	590.6	595.4	600.2	605.0	609.7	614.5	4.78
1390.	524.2	528.9	533.7	538.4	543.1	547.8	552.6	557.3	562.0	566.8	4.73
1389.	477.9	482.5	487.2	491.8	496.4	501.0	505.7	510.3	514.9	519.6	4.63
1388.	432.3	436.9	441.4	446.0	450.5	455.1	459.7	464.2	468.8	473.3	4.56
1387.	387.2	391.7	396.2	400.7	405.2	409.7	414.3	418.8	423.3	427.8	4.51
1386.	342.6	347.1	351.5	356.0	360.4	364.9	369.4	373.8	378.3	382.7	4.46
1385.	298.5	302.9	307.3	311.7	316.1	320.5	325.0	329.4	333.8	338.2	4.41
1384.	254.6	259.0	263.4	267.8	272.2	276.5	280.9	285.3	289.7	294.1	4.39
1383.	211.2	215.5	219.9	224.2	228.6	232.9	237.2	241.6	245.9	250.3	4.34
1382.	168.4	172.7	177.0	181.2	185.5	189.8	194.1	198.4	202.6	206.9	4.28
1381.	126.1	130.3	134.6	138.8	143.0	147.2	151.5	155.7	159.9	164.2	4.23
1380.	84.3	88.5	92.7	96.8	101.0	105.2	109.4	113.6	117.7	121.9	4.18
1379.	43.2	47.3	51.4	55.5	59.6	63.7	67.9	72.0	76.1	80.2	4.11
1378.	2.7	6.7	10.8	14.8	18.9	22.9	27.0	31.0	35.1	39.1	4.05
1377.										0.0	2.70

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2475.	10121.1										5.38
2474.	10067.5	10072.9	10078.2	10083.6	10088.9	10094.3	10099.7	10105.0	10110.4	10115.7	5.36
2473.	10014.1	10019.4	10024.8	10030.1	10035.5	10040.8	10046.1	10051.5	10056.8	10062.2	5.34
2472.	9960.8	9966.1	9971.5	9976.8	9982.1	9987.4	9992.8	9998.1	10003.4	10008.8	5.33
2471.	9907.8	9913.1	9918.4	9923.7	9929.0	9934.3	9939.6	9944.9	9950.2	9955.5	5.30
2470.	9854.8	9860.1	9865.4	9870.7	9876.0	9881.3	9886.6	9891.9	9897.2	9902.5	5.30
2469.	9802.1	9807.4	9812.6	9817.9	9823.2	9828.5	9833.7	9839.0	9844.3	9849.5	5.27
2468.	9749.5	9754.8	9760.0	9765.3	9770.5	9775.8	9781.1	9786.3	9791.6	9796.8	5.26
2467.	9697.1	9702.3	9707.6	9712.8	9718.1	9723.3	9728.5	9733.8	9739.0	9744.3	5.24
2466.	9644.8	9650.0	9655.3	9660.5	9665.7	9671.0	9676.2	9681.4	9686.6	9691.9	5.23
2465.	9592.7	9597.9	9603.1	9608.3	9613.5	9618.8	9624.0	9629.2	9634.4	9639.6	5.21
2464.	9540.8	9546.0	9551.2	9556.4	9561.6	9566.8	9571.9	9577.1	9582.3	9587.5	5.19
2463.	9489.0	9494.2	9499.4	9504.5	9509.7	9514.9	9520.1	9525.3	9530.4	9535.6	5.18
2462.	9437.4	9442.6	9447.7	9452.9	9458.0	9463.2	9468.4	9473.5	9478.7	9483.8	5.16
2461.	9386.0	9391.1	9396.3	9401.4	9406.6	9411.7	9416.8	9422.0	9427.1	9432.3	5.14
2460.	9334.8	9339.9	9345.0	9350.2	9355.3	9360.4	9365.5	9370.6	9375.8	9380.9	5.12
2459.	9283.7	9288.8	9293.9	9299.0	9304.1	9309.3	9314.4	9319.5	9324.6	9329.7	5.11
2458.	9232.8	9237.9	9243.0	9248.1	9253.2	9258.3	9263.3	9268.4	9273.5	9278.6	5.09
2457.	9182.0	9187.1	9192.2	9197.2	9202.3	9207.4	9212.5	9217.6	9222.6	9227.7	5.08
2456.	9131.4	9136.5	9141.5	9146.6	9151.6	9156.7	9161.8	9166.8	9171.9	9176.9	5.06
2455.	9081.0	9086.0	9091.1	9096.1	9101.2	9106.2	9111.2	9116.3	9121.3	9126.4	5.04

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2454.	9030.8	9035.8	9040.8	9045.9	9050.9	9055.9	9060.9	9065.9	9071.0	9076.0	5.02
2453.	8980.7	8985.7	8990.7	8995.7	9000.7	9005.8	9010.8	9015.8	9020.8	9025.8	5.01
2452.	8930.8	8935.8	8940.8	8945.8	8950.8	8955.8	8960.7	8965.7	8970.7	8975.7	4.99
2451.	8881.0	8886.0	8891.0	8895.9	8900.9	8905.9	8910.9	8915.9	8920.8	8925.8	4.98
2450.	8831.4	8836.4	8841.3	8846.3	8851.2	8856.2	8861.2	8866.1	8871.1	8876.0	4.96
2449.	8782.0	8786.9	8791.9	8796.8	8801.8	8806.7	8811.6	8816.6	8821.5	8826.5	4.94
2448.	8732.8	8737.7	8742.6	8747.6	8752.5	8757.4	8762.3	8767.2	8772.2	8777.1	4.92
2447.	8683.7	8688.6	8693.5	8698.4	8703.3	8708.3	8713.2	8718.1	8723.0	8727.9	4.91
2446.	8634.8	8639.7	8644.6	8649.5	8654.4	8659.3	8664.1	8669.0	8673.9	8678.8	4.89
2445.	8586.0	8590.9	8595.8	8600.6	8605.5	8610.4	8615.3	8620.2	8625.0	8629.9	4.88
2444.	8537.5	8542.4	8547.2	8552.1	8556.9	8561.8	8566.6	8571.5	8576.3	8581.2	4.85
2443.	8489.1	8493.9	8498.8	8503.6	8508.5	8513.3	8518.1	8523.0	8527.8	8532.7	4.84
2442.	8440.8	8445.6	8450.5	8455.3	8460.1	8465.0	8469.8	8474.6	8479.4	8484.3	4.83
2441.	8392.7	8397.5	8402.3	8407.1	8411.9	8416.8	8421.6	8426.4	8431.2	8436.0	4.81
2440.	8344.8	8349.6	8354.4	8359.2	8364.0	8368.8	8373.5	8378.3	8383.1	8387.9	4.79
2439.	8297.1	8301.9	8306.6	8311.4	8316.2	8321.0	8325.7	8330.5	8335.3	8340.0	4.77
2438.	8249.5	8254.3	8259.0	8263.8	8268.5	8273.3	8278.1	8282.8	8287.6	8292.3	4.76
2437.	8202.1	8206.8	8211.6	8216.3	8221.1	8225.8	8230.5	8235.3	8240.0	8244.8	4.74
2436.	8154.8	8159.5	8164.3	8169.0	8173.7	8178.5	8183.2	8187.9	8192.6	8197.4	4.73
2435.	8107.8	8112.5	8117.2	8121.9	8126.6	8131.3	8136.0	8140.7	8145.4	8150.1	4.70
2434.	8060.9	8065.6	8070.3	8075.0	8079.7	8084.4	8089.0	8093.7	8098.4	8103.1	4.69
2433.	8014.1	8018.8	8023.5	8028.1	8032.8	8037.5	8042.2	8046.9	8051.5	8056.2	4.68
2432.	7967.5	7972.2	7976.8	7981.5	7986.1	7990.8	7995.5	8000.1	8004.8	8009.4	4.66
2431.	7921.1	7925.7	7930.4	7935.0	7939.7	7944.3	7948.9	7953.6	7958.2	7962.9	4.64
2430.	7874.9	7879.5	7884.1	7888.8	7893.4	7898.0	7902.6	7907.2	7911.9	7916.5	4.62

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2429.	7828.8	7833.4	7838.0	7842.6	7847.2	7851.9	7856.5	7861.1	7865.7	7870.3	4.61
2428.	7782.9	7787.5	7792.1	7796.7	7801.3	7805.9	7810.4	7815.0	7819.6	7824.2	4.59
2427.	7737.2	7741.8	7746.3	7750.9	7755.5	7760.1	7764.6	7769.2	7773.8	7778.3	4.57
2426.	7691.6	7696.2	7700.7	7705.3	7709.8	7714.4	7719.0	7723.5	7728.1	7732.6	4.56
2425.	7646.2	7650.7	7655.3	7659.8	7664.4	7668.9	7673.4	7678.0	7682.5	7687.1	4.54
2424.	7600.9	7605.4	7610.0	7614.5	7619.0	7623.6	7628.1	7632.6	7637.1	7641.7	4.53
2423.	7555.9	7560.4	7564.9	7569.4	7573.9	7578.4	7582.9	7587.4	7591.9	7596.4	4.50
2422.	7511.0	7515.5	7520.0	7524.5	7529.0	7533.5	7537.9	7542.4	7546.9	7551.4	4.49
2421.	7466.2	7470.7	7475.2	7479.6	7484.1	7488.6	7493.1	7497.6	7502.0	7506.5	4.48
2420.	7421.6	7426.1	7430.5	7435.0	7439.4	7443.9	7448.4	7452.8	7457.3	7461.7	4.46
2419.	7377.2	7381.6	7386.1	7390.5	7395.0	7399.4	7403.8	7408.3	7412.7	7417.2	4.44
2418.	7333.0	7337.4	7341.8	7346.3	7350.7	7355.1	7359.5	7363.9	7368.4	7372.8	4.42
2417.	7288.9	7293.3	7297.7	7302.1	7306.5	7311.0	7315.4	7319.8	7324.2	7328.6	4.41
2416.	7245.0	7249.4	7253.8	7258.2	7262.6	7267.0	7271.3	7275.7	7280.1	7284.5	4.39
2415.	7201.3	7205.7	7210.0	7214.4	7218.8	7223.2	7227.5	7231.9	7236.3	7240.6	4.37
2414.	7157.7	7162.1	7166.4	7170.8	7175.1	7179.5	7183.9	7188.2	7192.6	7196.9	4.36
2413.	7114.3	7118.6	7123.0	7127.3	7131.7	7136.0	7140.3	7144.7	7149.0	7153.4	4.34
2412.	7071.0	7075.3	7079.7	7084.0	7088.3	7092.7	7097.0	7101.3	7105.6	7110.0	4.33
2411.	7028.0	7032.3	7036.6	7040.9	7045.2	7049.5	7053.8	7058.1	7062.4	7066.7	4.30
2410.	6985.1	6989.4	6993.7	6998.0	7002.3	7006.6	7010.8	7015.1	7019.4	7023.7	4.29
2409.	6942.3	6946.6	6950.9	6955.1	6959.4	6963.7	6968.0	6972.3	6976.5	6980.8	4.28
2408.	6899.7	6904.0	6908.2	6912.5	6916.7	6921.0	6925.3	6929.5	6933.8	6938.0	4.26
2407.	6857.3	6861.5	6865.8	6870.0	6874.3	6878.5	6882.7	6887.0	6891.2	6895.5	4.24
2406.	6815.1	6819.3	6823.5	6827.8	6832.0	6836.2	6840.4	6844.6	6848.9	6853.1	4.22
2405.	6773.0	6777.2	6781.4	6785.6	6789.8	6794.1	6798.3	6802.5	6806.7	6810.9	4.21

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET											AVERAGE DIFFERENCE PER TENTH FT
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
2404.	6731.1	6735.3	6739.5	6743.7	6747.9	6752.1	6756.2	6760.4	6764.6	6768.8	4.19
2403.	6689.4	6693.6	6697.7	6701.9	6706.1	6710.3	6714.4	6718.6	6722.8	6726.9	4.17
2402.	6647.8	6652.0	6656.1	6660.3	6664.4	6668.6	6672.8	6676.9	6681.1	6685.2	4.16
2401.	6606.4	6610.5	6614.7	6618.8	6623.0	6627.1	6631.2	6635.4	6639.5	6643.7	4.14
2400.	6565.1	6569.2	6573.4	6577.5	6581.6	6585.8	6589.9	6594.0	6598.1	6602.3	4.13
2399.	6524.1	6528.2	6532.3	6536.4	6540.5	6544.6	6548.7	6552.8	6556.9	6561.0	4.10
2398.	6483.4	6487.5	6491.5	6495.6	6499.7	6503.8	6507.8	6511.9	6516.0	6520.0	4.07
2397.	6443.0	6447.0	6451.1	6455.1	6459.2	6463.2	6467.2	6471.3	6475.3	6479.4	4.04
2396.	6403.0	6407.0	6411.0	6415.0	6419.0	6423.0	6427.0	6431.0	6435.0	6439.0	4.00
2395.	6363.4	6367.4	6371.3	6375.3	6379.2	6383.2	6387.2	6391.1	6395.1	6399.0	3.96
2394.	6324.1	6328.0	6332.0	6335.9	6339.8	6343.8	6347.7	6351.6	6355.5	6359.5	3.93
2393.	6285.1	6289.0	6292.9	6295.8	6300.7	6304.6	6308.5	6312.4	6316.3	6320.2	3.90
2392.	6240.4	6250.3	6254.1	6258.0	6261.9	6265.7	6269.6	6273.5	6277.4	6281.2	3.87
2391.	6208.1	6211.9	6215.8	6219.6	6223.4	6227.2	6231.1	6234.9	6238.7	6242.6	3.83
2390.	6170.1	6173.9	6177.7	6181.5	6185.3	6189.1	6192.9	6196.7	6200.5	6204.3	3.80
2389.	6132.4	6136.2	6140.0	6143.7	6147.5	6151.2	6155.0	6158.8	6162.6	6166.3	3.77
2388.	6095.1	6098.8	6102.5	6106.3	6110.0	6113.7	6117.5	6171.2	6124.9	6128.7	3.74
2387.	6058.0	6061.7	6065.4	6069.1	6072.8	6076.5	6080.2	6083.9	6087.6	6091.4	3.71
2386.	6021.2	6024.9	6028.6	6032.2	6035.8	6039.6	6043.3	6046.9	6050.6	6054.3	3.68
2385.	5984.8	5988.4	5992.0	5995.7	5999.3	6003.0	6006.6	6010.3	6013.9	6017.6	3.65
2384.	5946.6	5952.2	5955.8	5959.4	5963.0	5966.6	5970.3	5973.9	5977.5	5981.1	3.62
2383.	5912.7	5916.3	5919.8	5923.5	5927.0	5930.6	5934.2	5937.8	5941.4	5945.0	3.59
2382.	5677.1	5880.6	5884.2	5887.7	5891.3	5894.8	5896.4	5902.0	5905.5	5909.1	3.56
2381.	5841.7	5845.2	5884.2	5852.3	5855.8	5859.4	5862.9	5866.4	5870.0	5873.5	3.53
2380.	5806.7	5610.1	5613.6	5817.1	5820.6	5824.2	5827.7	5831.2	5834.7	5836.2	3.51

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2379.	5771.9	5775.3	5778.8	5782.3	5785.7	5789.2	5792.7	5796.2	5799.7	5803.2	3.48
2378.	5737.3	5740.8	5774.2	5747.6	5751.1	5754.5	5758.0	5761.5	5764.9	5766.4	3.45
2377.	5703.0	5706.4	5709.9	5713.3	5716.7	5720.1	5723.6	5727.0	5730.4	5733.9	3.43
2376.	5669.0	5672.4	5675.8	5679.2	5682.6	5686.0	5689.4	5692.8	5696.2	5699.6	3.40
2375.	5635.2	5638.6	5642.0	5645.3	5648.7	5652.1	5655.5	5658.8	5662.2	5665.6	3.38
2374.	5601.7	5605.0	5608.4	5611.7	5615.1	5618.4	5621.8	5625.1	5628.5	5631.9	3.35
2373.	5568.4	5571.7	5575.0	5578.4	5581.7	5585.0	5588.3	5591.7	5595.0	5598.3	3.33
2372.	5535.3	5538.6	5541.9	5545.2	5548.5	5551.8	5555.1	5558.5	5561.8	5565.1	3.31
2371.	5502.5	5505.8	5509.1	5512.3	5515.6	5518.9	5522.2	5525.5	5528.8	5532.0	3.28
2370.	5469.9	5473.2	5476.4	5479.7	5482.9	5486.2	5489.5	5492.7	5496.0	5499.2	3.26
2369.	5437.6	5440.8	5444.0	5447.2	5450.5	5453.7	5456.9	5460.2	5463.4	5466.7	3.24
2368.	5405.4	5408.6	5411.8	5415.0	5418.2	5421.4	5424.7	5427.9	5431.1	5434.3	3.21
2367.	5373.5	5376.7	5379.8	5383.0	5386.2	5389.4	5392.6	5395.8	5399.0	5402.2	3.19
2366.	5341.7	5344.9	5348.1	5351.2	5354.4	5357.6	5360.8	5363.9	5367.1	5370.3	3.17
2365.	5310.2	5313.4	5316.5	5319.7	5322.8	5326.0	5329.1	5332.3	5335.4	5338.6	3.15
2364.	5276.9	5282.0	5285.2	5288.3	5291.4	5294.6	5297.7	5300.8	5304.0	5307.1	3.13
2363.	5247.8	5250.9	5254.0	5257.1	5260.2	5263.3	5266.5	5269.6	5272.7	5275.8	3.11
2362.	5216.9	5220.0	5223.1	5226.2	5229.3	5232.3	5235.4	5238.5	5241.5	5244.7	3.09
2361.	5186.2	5189.3	5192.3	5195.4	5198.5	5201.5	5204.6	5207.7	5210.6	5213.8	3.07
2360.	5155.7	5158.7	5161.6	5164.8	5167.9	5170.9	5174.0	5177.0	5180.1	5183.1	3.05
2359.	5125.3	5128.4	5131.4	5134.4	5137.4	5140.5	5143.5	5146.6	5149.6	5152.6	3.03
2358.	5095.2	5098.2	5101.2	5104.2	5107.2	5110.2	5113.3	5116.3	5119.3	5122.3	3.02
2357.	5065.2	5068.2	5071.2	5074.2	5077.2	5080.2	5083.2	5086.2	5089.2	5092.2	3.00
2356.	5035.4	5036.4	5041.4	5044.3	5047.3	5050.3	5053.3	5056.2	5059.2	5062.2	2.98
2355.	5055.8	5008.7	5011.7	5014.7	5017.6	5020.6	5023.5	5026.5	5029.5	5032.4	2.96

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2354.	4976.3	4979.3	4982.2	4985.1	4988.1	4991.0	4994.0	4996.9	4999.9	5002.8	2.95
2353.	4947.0	4950.0	4952.9	4955.8	4958.7	4961.7	4964.6	4967.5	4970.5	4973.4	2.93
2352.	4917.9	4920.8	4923.7	4926.6	4929.5	4932.4	4935.4	4938.3	4941.2	4944.1	2.91
2351.	4886.9	4891.8	4894.7	4897.6	4900.5	4903.4	4906.3	4909.2	4912.1	4915.0	2.90
2350.	4860.1	4863.0	4865.9	4868.8	4871.6	4874.5	4877.4	4880.3	4883.2	4886.1	2.88
2349.	4831.5	4834.3	4837.2	4840.1	4842.9	4845.8	4848.6	4851.5	4854.4	4857.3	2.87
2348.	4803.0	4805.8	4808.7	4811.5	4814.3	4817.2	4820.1	4822.9	4825.8	4828.6	2.85
2347.	4774.6	4777.4	4780.3	4783.1	4785.9	4788.8	4791.6	4794.4	4797.3	4800.1	2.84
2346.	4746.4	4749.2	4752.0	4754.8	4757.7	4760.5	4763.3	4766.1	4768.9	4771.8	2.82
2345.	4718.3	4721.1	4723.9	4726.7	4729.5	4732.3	4735.1	4738.0	4740.8	4743.6	2.81
2344.	4690.4	4693.2	4696.0	4698.7	4701.5	4704.3	4707.1	4709.9	4712.7	4715.5	2.79
2343.	4662.6	4665.4	4668.1	4670.9	4673.7	4676.5	4679.2	4682.0	4684.8	4687.6	2.78
2342.	4634.9	4637.7	4640.4	4643.2	4646.0	4648.7	4651.5	4654.3	4657.0	4659.8	2.77
2341.	4607.4	4610.1	4612.9	4615.6	4618.4	4621.1	4623.9	4626.6	4629.4	4632.2	2.75
2340.	4580.0	4582.7	4585.4	4588.2	4590.9	4593.7	4596.4	4599.1	4601.9	4604.6	2.74
2339.	4552.7	4555.4	4558.1	4560.8	4563.6	4566.3	4569.0	4571.6	4574.5	4577.2	2.73
2338.	4525.4	4528.1	4530.9	4533.6	4536.3	4539.0	4541.7	4544.5	4547.2	4549.9	2.72
2337.	4498.3	4501.0	4503.7	4506.4	4509.1	4511.8	4514.5	4517.3	4520.0	4522.7	2.72
2336.	4471.2	4473.9	4476.6	4479.3	4482.0	4484.7	4487.4	4490.1	4492.8	4495.5	2.71
2335.	4444.1	4446.8	4449.5	4452.2	4454.9	4457.6	4460.3	4463.1	4465.8	4468.5	2.70
2334.	4417.2	4419.9	4422.6	4425.3	4428.0	4430.7	4433.4	4436.1	4438.8	4441.4	2.69
2333.	4390.3	4393.0	4395.7	4398.4	4401.1	4403.8	4406.5	4409.1	4411.8	4414.5	2.69
2332.	4363.6	4366.2	4368.9	4371.6	4374.3	4376.9	4379.6	4382.3	4385.0	4387.7	2.68
2331.	4336.8	4339.5	4342.2	4344.9	4347.5	4350.2	4352.9	4355.5	4358.2	4360.9	2.67
2330.	4310.2	4312.9	4315.5	4318.2	4320.9	4323.5	4326.2	4328.8	4331.5	4334.2	2.66

Detailed Operating Plan for 1996-97

Exhibit 15 - MICA RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2329.	4283.6	4286.3	4289.0	4291.6	4294.3	4296.9	4299.6	4302.2	4304.9	4307.6	2.66
2328.	4257.2	4259.8	4262.5	4265.1	4267.8	4270.4	4273.0	4275.7	4278.3	4281.0	2.65
2327.	4230.8	4233.4	4236.0	4238.7	4241.3	4244.0	4246.6	4249.2	4251.9	4254.5	2.64
2326.	4204.4	4207.1	4209.7	4212.3	4215.0	4217.6	4220.2	4222.9	4225.5	4228.1	2.63
2325.	4178.2	4180.8	4183.4	4186.1	4188.7	4191.3	4193.9	4196.6	4199.2	4201.8	2.62
2324.	4152.0	4154.6	4157.2	4159.9	4162.5	4165.1	4167.7	4170.3	4172.9	4175.6	2.62
2323.	4125.9	4128.5	4131.1	4133.7	4136.3	4139.0	4141.6	4144.2	4146.8	4149.4	2.61
2322.	4099.9	4102.5	4105.1	4107.7	4110.3	4112.9	4115.5	4118.1	4120.7	4123.3	2.60
2321.	4074.0	4076.6	4079.1	4081.7	4084.3	4086.9	4089.5	4092.1	4094.7	4097.3	2.59
2320.	4048.1	4050.7	4053.3	4055.9	4058.4	4061.0	4063.6	4066.2	4068.8	4071.4	2.59

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET											AVERAGE DIFFERENCE PER TENTH FT
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
2459.	2510.5										
2458.	2487.1	2489.4	2491.8	2494.1	2496.5	2498.8	2501.1	2503.5	2505.8	2508.2	2.34
2457.	2463.8	2466.1	2468.5	2470.8	2473.1	2475.4	2477.8	2480.1	2482.4	2484.8	2.33
2456.	2440.6	2442.9	2445.2	2447.6	2449.9	2452.2	2454.5	2456.8	2459.2	2461.5	2.32
2455.	2417.5	2419.8	2422.1	2424.4	2426.7	2429.0	2431.4	2433.7	2436.0	2438.3	2.31
2454.	2394.5	2396.8	2399.1	2401.4	2403.7	2406.0	2408.3	2410.6	2412.9	2415.2	2.30
2453.	2371.6	2373.9	2376.2	2378.5	2380.8	2383.0	2385.3	2387.6	2389.9	2392.2	2.29
2452.	2348.8	2351.1	2353.4	2355.6	2357.9	2360.2	2362.5	2364.8	2367.0	2369.3	2.28
2451.	2326.1	2328.4	2330.6	2332.9	2335.2	2337.4	2339.7	2342.0	2344.3	2346.5	2.27
2450.	2303.4	2305.7	2307.9	2310.2	2312.5	2314.7	2317.0	2319.3	2321.6	2323.8	2.27
2449.	2280.9	2283.1	2285.4	2287.6	2289.9	2292.1	2294.4	2296.6	2298.9	2301.1	2.25
2448.	2258.4	2260.6	2262.9	2265.1	2267.4	2269.6	2271.9	2274.1	2276.4	2278.6	2.25
2447.	2236.1	2238.3	2240.6	2242.8	2245.0	2247.2	2249.5	2251.7	2253.9	2256.2	2.23
2446.	2213.8	2216.0	2218.3	2220.5	2222.7	2224.9	2227.2	2229.4	2231.6	2233.9	2.23
2445.	2191.7	2193.9	2196.1	2198.3	2200.5	2202.7	2205.0	2207.2	2209.4	2211.6	2.21
2444.	2170.0	2172.2	2174.3	2176.5	2178.7	2180.8	2183.0	2185.2	2187.4	2189.5	2.17
2443.	2147.7	2149.9	2152.2	2154.4	2156.6	2158.8	2161.1	2163.3	2165.5	2167.8	2.23
2442.	2125.9	2128.1	2130.3	2132.4	2134.6	2136.8	2139.0	2141.2	2143.3	2145.5	2.18
2441.	2104.1	2106.3	2108.5	2110.6	2112.8	2115.0	2117.2	2119.4	2121.5	2123.7	2.18
2440.	2082.5	2084.7	2086.8	2089.0	2091.1	2093.3	2095.5	2097.6	2099.8	2101.9	2.16
2439.	2061.0	2063.1	2065.3	2067.4	2069.6	2071.7	2073.9	2076.0	2078.2	2080.3	2.15
2438.	2039.5	2041.6	2043.8	2045.9	2048.1	2050.2	2052.4	2054.5	2056.7	2058.8	2.15
2437.	2018.2	2020.3	2022.5	2024.6	2026.7	2028.8	2031.0	2033.1	2035.2	2037.4	2.13
2436.	1997.0	1999.1	2001.2	2003.4	2005.5	2007.6	2009.7	2011.8	2014.0	2016.1	2.12
2435.	1975.9	1978.0	1980.1	1982.2	1984.3	1986.4	1988.6	1990.7	1992.8	1994.9	2.11

Exhibit 16

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2434.	1954.9	1957.0	1959.1	1961.2	1963.3	1965.4	1967.5	1969.6	1971.7	1973.8	2.10
2433.	1934.0	1936.1	1938.2	1940.3	1942.4	1944.4	1946.5	1948.6	1950.7	1952.8	2.09
2432.	1913.2	1915.3	1917.4	1919.4	1921.5	1923.6	1925.7	1927.8	1929.8	1931.9	2.08
2431.	1892.5	1894.6	1896.6	1898.7	1900.8	1902.8	1904.9	1907.0	1909.1	1911.1	2.07
2430.	1871.9	1874.0	1876.0	1878.1	1880.1	1882.2	1884.3	1886.3	1888.4	1890.4	2.06
2429.	1851.4	1853.4	1855.5	1857.5	1859.6	1861.6	1863.7	1865.7	1867.8	1869.8	2.05
2428.	1831.0	1833.0	1835.1	1837.1	1839.2	1841.2	1843.2	1845.3	1847.3	1849.4	2.04
2427.	1810.7	1812.7	1814.8	1816.8	1818.8	1820.8	1822.9	1824.9	1826.9	1829.0	2.03
2426.	1790.6	1792.6	1794.6	1796.6	1798.6	1800.6	1802.7	1804.7	1806.7	1808.7	2.01
2425.	1770.5	1772.5	1774.5	1776.5	1778.5	1780.5	1782.6	1784.6	1786.6	1788.6	2.01
2424.	1750.6	1752.6	1754.6	1756.6	1758.6	1760.5	1762.5	1764.5	1766.5	1768.5	1.99
2423.	1730.8	1732.8	1734.8	1736.7	1738.7	1740.7	1742.7	1744.7	1746.6	1748.6	1.98
2422.	1711.1	1713.1	1715.0	1717.0	1719.0	1720.9	1722.9	1724.9	1726.9	1728.8	1.97
2421.	1691.5	1693.5	1695.4	1697.4	1699.3	1701.3	1703.3	1705.2	1707.2	1709.1	1.96
2420.	1672.0	1673.9	1675.9	1677.8	1679.8	1681.7	1683.7	1685.6	1687.6	1689.5	1.95
2419.	1652.6	1654.5	1656.5	1658.4	1660.4	1662.3	1664.2	1666.2	1668.1	1670.1	1.94
2418.	1633.3	1635.2	1637.2	1639.1	1641.0	1642.9	1644.9	1646.8	1648.7	1650.7	1.93
2417.	1614.2	1616.1	1618.0	1619.9	1621.8	1623.7	1625.7	1627.6	1629.5	1631.4	1.91
2416.	1595.2	1597.1	1599.0	1600.9	1602.8	1604.7	1606.6	1608.5	1610.4	1612.3	1.90
2415.	1576.3	1578.2	1580.1	1582.0	1583.9	1585.7	1587.6	1589.5	1591.4	1593.3	1.89
2414.	1557.5	1559.4	1561.3	1563.1	1565.0	1566.9	1568.8	1570.7	1572.5	1574.4	1.88
2413.	1538.9	1540.8	1542.6	1544.5	1546.3	1548.2	1550.1	1551.9	1553.8	1555.6	1.86
2412.	1520.3	1522.2	1524.0	1525.9	1527.7	1529.6	1531.5	1533.3	1535.2	1537.0	1.86
2411.	1501.9	1503.7	1505.6	1507.4	1509.3	1511.1	1512.9	1514.8	1516.6	1518.5	1.84
2410.	1483.6	1485.4	1487.3	1489.1	1490.9	1492.7	1494.6	1496.4	1498.2	1500.1	1.83

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2409.	1465.5	1467.3	1469.1	1470.9	1472.7	1474.5	1476.4	1478.2	1480.0	1481.8	1.81
2408.	1447.6	1449.4	1451.2	1453.0	1454.8	1456.5	1458.3	1460.1	1461.9	1463.7	1.79
2407.	1429.7	1431.5	1433.3	1435.1	1436.9	1438.6	1440.4	1442.2	1444.0	1445.8	1.79
2406.	1412.1	1413.9	1415.6	1417.4	1419.1	1420.9	1422.7	1424.4	1426.2	1427.9	1.76
2405.	1394.6	1396.3	1398.1	1399.8	1401.6	1403.3	1405.1	1406.8	1408.6	1410.3	1.75
2404.	1377.4	1379.1	1380.8	1382.6	1384.3	1386.0	1387.7	1389.4	1391.2	1392.9	1.72
2403.	1360.3	1362.0	1363.7	1365.4	1367.1	1368.8	1370.6	1372.3	1374.0	1375.7	1.71
2402.	1343.3	1345.0	1346.7	1348.4	1350.1	1351.8	1353.5	1355.2	1356.9	1358.6	1.70
2401.	1326.6	1328.3	1329.9	1331.6	1333.3	1334.9	1336.6	1338.3	1340.0	1341.6	1.67
2400.	1310.0	1311.7	1313.3	1315.0	1316.6	1318.3	1320.0	1321.6	1323.3	1324.9	1.66
2399.	1293.6	1295.2	1296.9	1298.5	1300.2	1301.8	1303.4	1305.1	1306.7	1308.4	1.64
2398.	1277.3	1278.9	1280.6	1282.2	1283.8	1285.4	1287.1	1288.7	1290.3	1292.0	1.63
2397.	1261.2	1262.8	1264.4	1266.0	1267.6	1269.2	1270.9	1272.5	1274.1	1275.7	1.61
2396.	1245.2	1246.8	1248.4	1250.0	1251.6	1253.2	1254.8	1256.4	1258.0	1259.6	1.60
2395.	1229.4	1231.0	1232.6	1234.1	1235.7	1237.3	1238.9	1240.5	1242.0	1243.6	1.58
2394.	1213.7	1215.3	1216.8	1218.4	1220.0	1221.5	1223.1	1224.7	1226.3	1227.8	1.57
2393.	1198.1	1199.7	1201.2	1202.8	1204.3	1205.9	1207.5	1209.0	1210.6	1212.1	1.56
2392.	1182.8	1184.3	1185.9	1187.4	1188.9	1190.4	1192.0	1193.5	1195.0	1196.6	1.53
2391.	1167.5	1169.0	1170.6	1172.1	1173.6	1175.1	1176.7	1178.2	1179.7	1181.3	1.53
2390.	1152.4	1153.9	1155.4	1156.9	1158.4	1159.9	1161.5	1163.0	1164.5	1166.0	1.51
2389.	1137.4	1138.9	1140.4	1141.9	1143.4	1144.9	1146.4	1147.9	1149.4	1150.9	1.50
2388.	1122.5	1124.0	1125.5	1127.0	1128.5	1129.9	1131.4	1132.9	1134.4	1135.9	1.49
2387.	1107.7	1109.2	1110.7	1112.1	1113.6	1115.1	1116.6	1118.1	1119.5	1121.0	1.48
2386.	1093.0	1094.5	1095.9	1097.4	1098.9	1100.3	1101.8	1103.3	1104.8	1106.2	1.47
2385.	1078.4	1079.9	1081.3	1082.8	1084.2	1085.7	1087.2	1088.6	1090.1	1091.5	1.46

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2384.	1063.8	1065.3	1066.7	1068.2	1069.6	1071.1	1072.6	1074.0	1075.5	1076.9	1.46
2383.	1049.3	1050.7	1052.2	1053.6	1055.1	1056.5	1058.0	1059.4	1060.9	1062.3	1.45
2382.	1034.9	1036.3	1037.8	1039.2	1040.7	1042.1	1043.5	1045.0	1046.4	1047.9	1.44
2381.	1020.6	1022.0	1023.5	1024.9	1026.3	1027.7	1029.2	1030.6	1032.0	1033.5	1.43
2380.	1006.3	1007.7	1009.2	1010.6	1012.0	1013.4	1014.9	1016.3	1017.7	1019.2	1.43
2379.	992.2	993.6	995.0	996.4	997.8	999.2	1000.7	1002.1	1003.5	1004.9	1.41
2378.	978.1	979.5	980.9	982.3	983.7	985.1	986.6	988.0	989.4	990.8	1.41
2377.	964.1	965.5	966.9	968.3	969.7	971.1	972.5	973.9	975.3	976.7	1.40
2376.	950.2	951.6	953.0	954.4	955.8	957.1	958.5	959.9	961.3	962.7	1.39
2375.	936.3	937.7	939.1	940.5	941.9	943.2	944.6	946.0	947.4	948.8	1.39
2374.	922.5	923.9	925.3	926.6	928.0	929.4	930.8	932.2	933.5	934.9	1.38
2373.	908.8	910.2	911.5	912.9	914.3	915.6	917.0	918.4	919.8	921.1	1.37
2372.	895.2	896.6	897.9	899.3	900.6	902.0	903.4	904.7	906.1	907.4	1.36
2371.	881.6	883.0	884.3	885.7	887.0	888.4	889.8	891.1	892.5	893.8	1.36
2370.	868.1	869.4	870.8	872.1	873.5	874.8	876.2	877.5	878.9	880.2	1.35
2369.	854.7	856.0	857.4	858.7	860.1	861.4	862.7	864.1	865.4	866.8	1.34
2368.	841.3	842.6	844.0	845.3	846.7	848.0	849.3	850.7	852.0	853.4	1.34
2367.	828.1	829.4	830.7	832.1	833.4	834.7	836.0	837.3	838.7	840.0	1.32
2366.	815.0	816.3	817.6	818.9	820.2	821.5	822.9	824.2	825.5	826.8	1.31
2365.	801.9	803.2	804.5	805.8	807.1	808.4	809.8	811.1	812.4	813.7	1.31
2364.	788.9	790.2	791.5	792.8	794.1	795.4	796.7	798.0	799.3	800.6	1.30
2363.	776.0	777.3	778.6	779.9	781.2	782.4	783.7	785.0	786.3	787.6	1.29
2362.	763.2	764.5	765.8	767.0	768.3	769.6	770.9	772.2	773.4	774.7	1.28
2361.	750.5	751.8	753.0	754.3	755.6	756.8	758.1	759.4	760.7	761.9	1.27
2360.	737.9	739.2	740.4	741.7	742.9	744.2	745.5	746.7	748.0	749.2	1.26

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET											AVERAGE DIFFERENCE PER TENTH FT
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
2359.	725.3	726.6	727.8	729.1	730.3	731.6	732.9	734.1	735.4	736.6	1.26
2358.	712.8	714.0	715.3	716.5	717.8	719.0	720.3	721.5	722.8	724.0	1.25
2357.	700.4	701.6	702.9	704.1	705.4	706.6	707.8	709.1	710.3	711.6	1.24
2356.	688.0	689.2	690.5	691.7	693.0	694.2	695.4	696.7	697.9	699.2	1.24
2355.	675.7	676.9	678.2	679.4	680.6	681.8	683.1	684.3	685.5	686.8	1.23
2354.	663.5	664.7	665.9	667.2	668.4	669.6	670.8	672.0	673.3	674.5	1.22
2353.	651.4	652.6	653.8	655.0	656.2	657.4	658.7	659.9	661.1	662.3	1.21
2352.	639.3	640.5	641.7	642.9	644.1	645.3	646.6	647.8	649.0	650.2	1.21
2351.	627.3	628.5	629.7	630.9	632.1	633.3	634.5	635.7	636.9	638.1	1.20
2350.	615.3	616.5	617.7	618.9	620.1	621.3	622.5	623.7	624.9	626.1	1.20
2349.	603.4	604.6	605.8	607.0	608.2	609.3	610.5	611.7	612.9	614.1	1.19
2348.	591.6	592.8	594.0	595.1	596.3	597.5	598.7	599.9	601.0	602.2	1.18
2347.	579.8	581.0	582.2	583.3	584.5	585.7	586.9	588.1	589.2	590.4	1.18
2346.	568.1	569.3	570.4	571.6	572.8	573.9	575.1	576.3	577.5	578.6	1.17
2345.	556.5	557.7	558.8	560.0	561.1	562.3	563.5	564.6	565.8	566.9	1.16
2344.	544.9	546.1	547.2	548.4	549.5	550.7	551.9	553.0	554.2	555.3	1.16
2343.	533.4	534.5	535.7	536.8	538.0	539.1	540.3	541.4	542.6	543.7	1.15
2342.	521.9	523.0	524.2	525.3	526.5	527.6	528.8	529.9	531.1	532.2	1.15
2341.	510.5	511.6	512.8	513.9	515.1	516.2	517.3	518.5	519.6	520.8	1.14
2340.	499.2	500.3	501.5	502.6	503.7	504.8	506.0	507.1	508.2	509.4	1.13
2339.	488.0	489.1	490.2	491.4	492.5	493.6	494.7	495.8	497.0	498.1	1.12
2338.	476.7	477.8	479.0	480.1	481.2	482.3	483.5	484.6	485.7	486.9	1.13
2337.	465.6	466.7	467.8	468.9	470.0	471.1	472.3	473.4	474.5	475.6	1.11
2336.	454.5	455.6	456.7	457.8	458.9	460.0	461.2	462.3	463.4	464.5	1.11
2335.	443.5	444.6	445.7	446.8	447.9	449.0	450.1	451.2	452.3	453.4	1.10

Detailed Operating Plan for 1996-97

Exhibit 16 - LIBBY RESERVOIR CAPACITY TABLE

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2334.	432.6	433.7	434.8	435.9	437.0	438.0	439.1	440.2	441.3	442.4	1.09
2333.	421.7	422.8	423.9	425.0	426.1	427.1	428.2	429.3	430.4	431.5	1.09
2332.	410.8	411.9	413.0	414.1	415.2	416.2	417.3	418.4	419.5	420.6	1.09
2331.	400.1	401.2	402.2	403.3	404.4	405.4	406.5	407.6	408.7	409.7	1.07
2330.	389.3	390.4	391.5	392.5	393.6	394.7	395.8	396.9	397.9	399.0	1.08
2329.	378.7	379.8	380.8	381.9	382.9	384.0	385.1	386.1	387.2	388.2	1.06
2328.	368.2	369.2	370.3	371.3	372.4	373.4	374.5	375.5	376.6	377.6	1.05
2327.	357.8	358.8	359.9	360.9	362.0	363.0	364.0	365.1	366.1	367.2	1.04
2326.	347.4	348.4	349.5	350.5	351.6	352.6	353.6	354.7	355.7	356.8	1.04
2325.	337.1	338.1	339.2	340.2	341.2	342.2	343.3	344.3	345.3	346.4	1.03
2324.	327.0	328.0	329.0	330.0	331.0	332.0	333.1	334.1	335.1	336.1	1.01
2323.	316.9	317.9	318.9	319.9	320.9	321.9	323.0	324.0	325.0	326.0	1.01
2322.	306.9	307.9	308.9	309.9	310.9	311.9	312.9	313.9	314.9	315.9	1.00
2321.	297.0	298.0	299.0	300.0	301.0	301.9	302.9	303.9	304.9	305.9	0.99
2320.	287.2	288.2	289.2	290.1	291.1	292.1	293.1	294.1	295.0	296.0	0.98
2319.	277.5	278.5	279.4	280.4	281.4	282.3	283.3	284.3	285.3	286.2	0.97
2318.	267.8	268.8	269.7	270.7	271.7	272.6	273.6	274.6	275.6	276.5	0.97
2317.	258.2	259.2	260.1	261.1	262.0	263.0	264.0	264.9	265.9	266.8	0.96
2316.	248.7	249.6	250.6	251.5	252.5	253.4	254.4	255.3	256.3	257.2	0.95
2315.	239.1	240.1	241.0	242.0	242.9	243.9	244.9	245.8	246.8	247.7	0.96
2314.	229.7	230.6	231.6	232.5	233.5	234.4	235.3	236.3	237.2	238.2	0.94
2313.	220.3	221.2	222.2	223.1	224.1	225.0	225.9	226.9	227.8	228.8	0.94
2312.	210.9	211.8	212.8	213.7	214.7	215.6	216.5	217.5	218.4	219.4	0.94
2311.	201.6	202.5	203.5	204.4	205.3	206.2	207.2	208.1	209.0	210.0	0.93
2310.	192.3	193.2	194.2	195.1	196.0	196.9	197.9	198.8	199.7	200.7	0.93

Detailed Operating Plan for 1996-97

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ELEVATION IN FEET											AVERAGE DIFFERENCE PER TENTH FT
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
2309.	183.1	184.0	184.9	185.9	186.8	187.7	188.6	189.5	190.5	191.4	0.92
2308.	174.0	174.9	175.8	176.7	177.6	178.5	179.5	180.4	181.3	182.2	0.91
2307.	164.9	165.8	166.7	167.6	168.5	169.4	170.4	171.3	172.2	173.1	0.91
2306.	155.9	156.8	157.7	158.6	159.5	160.4	161.3	162.2	163.1	164.0	0.90
2305.	146.9	147.8	148.7	149.6	150.5	151.4	152.3	153.2	154.1	155.0	0.90
2304.	138.1	139.0	139.9	140.7	141.6	142.5	143.4	144.3	145.1	146.0	0.88
2303.	129.3	130.2	131.1	131.9	132.8	133.7	134.6	135.5	136.3	137.2	0.88
2302.	120.5	121.4	122.3	123.1	124.0	124.9	125.8	126.7	127.5	128.4	0.88
2301.	111.8	112.7	113.5	114.4	115.3	116.1	117.0	117.9	118.8	119.6	0.87
2300.	103.2	104.1	104.9	105.8	106.6	107.5	108.4	109.2	110.1	110.9	0.86
2299.	99.2	99.6	100.0	100.4	100.8	101.2	101.6	102.0	102.4	102.8	0.40
2298.	86.2	87.5	88.8	90.1	91.4	92.7	94.0	95.3	96.6	97.9	1.30
2297.	81.6	82.1	82.5	83.0	83.4	83.9	84.4	84.8	85.3	85.7	0.46
2296.	69.7	70.9	72.1	73.3	74.5	75.6	76.8	78.0	79.2	80.4	1.19
2295.	61.5	62.3	63.1	64.0	64.8	65.6	66.4	67.2	68.1	68.9	0.82
2294.	53.5	54.3	55.1	55.9	56.7	57.5	58.3	59.1	59.9	60.7	0.80
2293.	45.6	46.4	47.2	48.0	48.8	49.5	50.3	51.1	51.9	52.7	0.79
2292.	39.2	39.8	40.5	41.1	41.8	42.4	43.0	43.7	44.3	45.0	0.64
2291.	30.0	30.9	31.8	32.8	33.7	34.6	35.5	36.4	37.4	38.3	0.92
2290.	22.4	23.2	23.9	24.7	25.4	26.2	27.0	27.7	28.5	29.2	0.76
2289.	14.8	15.6	16.3	17.1	17.8	18.6	19.4	20.1	20.9	21.6	0.76
2288.	7.4	8.1	8.9	9.6	10.4	11.1	11.8	12.6	13.3	14.1	0.74
2287.	0.0	0.7	1.5	2.2	3.0	3.7	4.4	5.2	5.9	6.7	0.74