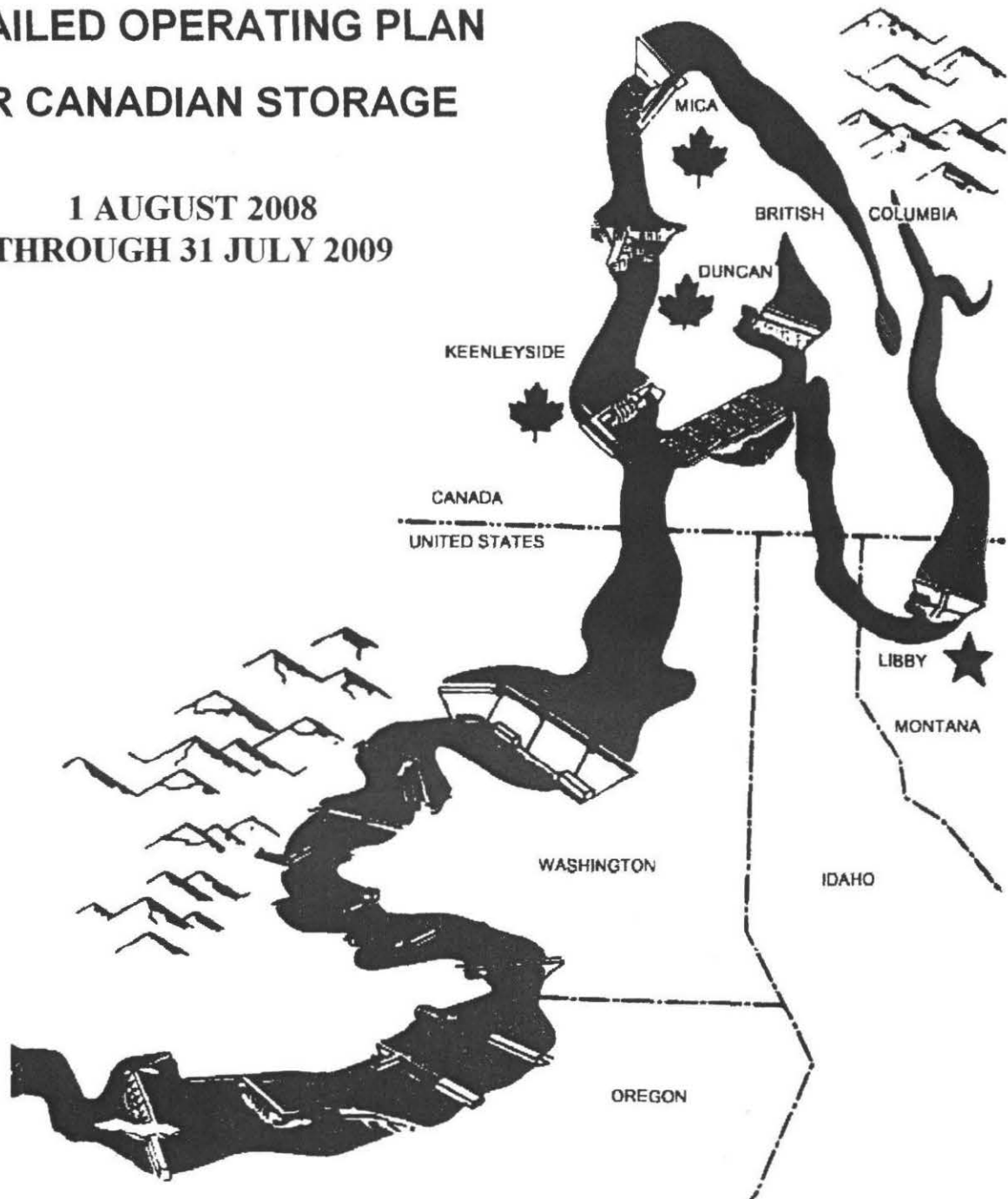


**COLUMBIA RIVER TREATY
DETAILED OPERATING PLAN
FOR CANADIAN STORAGE**

**1 AUGUST 2008
THROUGH 31 JULY 2009**



**COLUMBIA RIVER TREATY ENTITY AGREEMENT ON THE
DETAILED OPERATING PLAN
FOR CANADIAN STORAGE**

1 AUGUST 2008 THROUGH 31 JULY 2009

Article XIV 2.(k) of the Columbia River Treaty between Canada and the United States of America (Treaty) provides that the power and duties of the Entities include "*preparation and implementation of detailed operating plans that may produce results more advantageous to both countries than those that would arise from operation under the plans* [Assured Operating Plans (AOP)] *referred to in Annexes A and B.*"

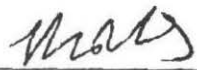
The Entities agree that Treaty storage shall be operated and electric power delivered in accordance with the attached "Detailed Operating Plan for Canadian Storage – 1 August 2008 through 31 July 2009" (the 2008-09 Detailed Operating Plan), dated June 2008.

The Entities agree that the "Columbia River Treaty Principles and Procedures for Preparation and Use of Hydroelectric Operating Plans for Canadian Treaty Storage," dated October 2003, or any future document the Entities agree supersedes the 2003 document, and any Appendices approved by the Operating Committee, will guide the Entities in implementing the 2008-09 Detailed Operating Plan.

In witness thereof, the Entities have caused this agreement to be executed.

Executed for the Canadian Entity this 19 day of June, 2008.

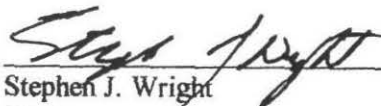
By



Robert G. Elton
Chair

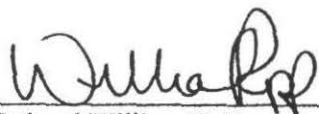
Executed for the United States Entity this 19th day of June, 2008.

By



Stephen J. Wright
Chairman

By



Colonel William E. Rapp
Member

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**COLUMBIA RIVER TREATY
DETAILED OPERATING PLAN
FOR CANADIAN STORAGE
1 AUGUST 2008 THROUGH 31 JULY 2009**

I. REFERENCES AND INTERPRETATION

In this document:

- A. “Aspects Agreement” means the Entity Agreement on Aspects of the Delivery of the Canadian Entitlement for 1 April 1998 through 15 September 2024 between the Canadian Entity and the United States Entity, dated 29 March, 1999, together with its Attachment A – Points of Delivery and Attachment B - Scheduling Guidelines as they may be subsequently modified or amended by the Operating Committee.
- B. “Assured Operating Plan” (AOP09) means the hydroelectric operating plan developed in accordance with the Columbia River Treaty (Treaty) for the Operating Year as further described in the document “Columbia River Treaty Hydroelectric Operating Plan - Assured Operating Plan for Operating Year 2008-09” dated January 2004.”
- C. “Canadian storage” and “Canadian Treaty Storage” mean the storage provided by Canada under Article II of the Treaty, which is a total of 19.119 cubic kilometers ($\text{km}^3 = 10^9$ cubic meters) (15.5 million acre feet (Maf)) at the Mica, Duncan, and Arrow reservoirs.
- D. “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.
- E. “Flood Control Operating Plan” (FCOP) means the document “Columbia River Treaty Flood Control Operating Plan,” dated May 2003, including any published updates.
- F. “Libby Coordination Agreement (LCA)” means the “Columbia River Treaty Entity Agreement Coordinating the Operation of the Libby Project With the Operation Of Hydroelectric Plans on the Kootenay River and Elsewhere in Canada”, dated 16 February 2000.
- G. “Libby Operating Plan” (LOP) means the operating plan prepared by the U.S. Army Corps of Engineers (“Corps of Engineers”) on behalf of the U.S. Entity for the Libby project in accordance with Section 9 of the LCA, and incorporated as Attachment B to the LCA.
- H. “Operating Committee” means the Columbia River Treaty Operating Committee.
- I. “Operating Year” means the period from 1 August 2008 through 31 July 2009.
- J. “Principles and Procedures” (POP) means the document “Columbia River Treaty

Principles and Procedures for Preparation and Use of Hydroelectric Operating Plans for Canadian Treaty Storage,” dated October 2003, or any future document the Entities agree supersedes the 2003 document, and any Appendices approved by the Operating Committee.

- K. “Supplemental Operating Agreement” (SOA) means any Entity agreement(s) (signed either by the Entities or the Operating Committee) that authorize Canadian storage operations above or draft below the TSR levels as described in Section IV(A) of this DOP and Section 11 of the LCA, but not including Section 10 of the LCA.
- L. “Treaty Storage Regulation” (TSR) means the Coordinated System hydro regulation study performed for the Operating Committee by Bonneville Power Administration (BPA) staff using actual and forecasted streamflow conditions and implementing operating criteria contained in this DOP, including any changes agreed to under subsection II(D), but excluding subsections IV(D) and SOA operations authorized under subsection IV(A).
- M. “Weekly Treaty Storage Operation Agreement” means the note electronically transferred (e-mail or Fax) the last working day of each week 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, including any changes agreed to under subsection II(D) and Section IV.

Other capitalized terms used in this document, not defined above, should be interpreted to have the meaning ascribed to them in POP (either in the definitions or the text), the FCOP or the generally accepted meaning within the industry in the Columbia River Basin.

II. PREPARATION AND SCOPE

A. General

This DOP for Canadian storage is based on the operating criteria contained in the AOP09 and its supporting hydro regulation studies with agreed revisions noted in subsection II(C) below, together with scheduling procedures and mutually beneficial changes from the AOP09 data agreed to by the Entities.

This DOP was developed in accordance with the procedures outlined in the POP and incorporates the use of the International System of Units (SI, or Metric); however, for operational purposes, reliance should be placed on measurements in the English system.

B. Storage Amounts

1. The usable Canadian storage space available for power purposes during the Operating Year is 19.119 km³ (15.5 Maf) in Canada distributed as follows:

Duncan Reservoir

1.727 km³ (1.4 Maf or 705.8 thousand second-foot-days (ksfd)) between elevations 576.68 meters (m) (1892.0 feet) and 546.87 m (1794.2 feet) as measured at Duncan forebay, and based on British Columbia Hydro and Power Authority (B.C. Hydro) table dated 21 February 1973.

Arrow Reservoir

8.758 km³ (7.1 Maf or 3579.6 ksf) between elevations 440.13 m (1444.0 feet) and 419.98 m (1377.9 feet) as measured at Fauquier, B.C, and based on B.C. Hydro table dated 28 February 1974.

Mica Reservoir

8.634 km³ (7 Maf or 3529.2 ksf) between elevations 754.38 m (2475.0 feet) and 707.41 m (2320.9 feet) as measured at Mica forebay, and based on B.C. Hydro table dated 25 March 1974. The total available storage between these elevations is 14.802 km³ (12 Maf, 6050.0 ksf), but only 8.634 km³ (7 Maf, 3529.2 ksf) of this storage is utilized for power purposes, except as described in paragraph VII(C)6.

2. The requirements for flood control operations are defined in the Treaty and the FCOP. In accordance with Section 6-6 of the FCOP, the Canadian Entity selected for the AOP09 a reallocation of Mica/Arrow system flood control space to be 5.033 km³ (4.08 Maf) at Mica and 4.441 km³ (3.6 Maf) at Arrow for the Operating Year. The usable Canadian storage available for normal flood control purposes during the Operating Year will be 1.567 km³ (1.27 Maf) in Duncan Reservoir below elevation 576.68 m (1892.0 feet), 4.441 km³ (3.6 Maf) in Arrow Reservoir below elevation 440.13 m (1444.0 feet), and 5.033 km³ (4.08 Maf) in Mica Reservoir. Additional storage may also be operated for flood control purposes under special circumstances, as described in Section 3-2 of the FCOP.

During the 2008-09 operating year, the Canadian Entity may request a different allocation of Mica/Arrow system flood space. To the extent that the flood control storage allocation differs from that included in the AOP09, the Operating Committee will develop and execute an agreement that will result in the same Treaty flows at the U.S.-Canadian border as that provided in the AOP09, as modified in subsection II(C), unless otherwise agreed by the Operating Committee.

During the refill period, the Canadian Section of the Operating Committee may request local flood control elevations for Arrow with the intent to minimize the occurrence of flows above 165 kcfs at Trail (as measured at Birchbank). The local flood control objective below 225 kcfs will be included in the flood control rule curve and input as the Upper Rule Curve in the TSR studies only to the extent that it does not jeopardize system flood control needs.

In order to accommodate local flow requirements downstream of Duncan Dam, B.C. Hydro will likely request a variance for the Operating Year to the February Duncan flood control draft requirements in the May 2003 FCOP. The Corps of Engineers will review this variance request in its normal manner.

C. Preparation of the Treaty Storage Regulation Study

The TSR study uses DOP operating criteria for both Canadian and U.S. projects to define a Canadian storage operation. The TSR09 study shall be based on the loads, thermal and other resources, rule curves, non-power constraints, and other plant and operating data contained in the AOP09 Step I hydro regulation study, except for the following changes agreed to by the Entities.

1. Flood control rule curves for Canadian projects will be defined as noted in subsection II(B)2 above unless otherwise agreed by the Operating Committee.
2. The hydro-independent generation will be updated from the AOP09 to: 1) for projects updated in the Pacific Northwest Coordination Agreement (PNCA) Actual Energy Regulation (AER), use the AER generation value, 2) for all other hydro-independents in the AOP09, use the 60-year median values from the AOP09.
3. In accordance with Attachment C to the LCA, a maximum January outflow limit at Arrow of 2,265 m³/s (80,000 cfs) will be added as described in subsection VII(B)1 of this document.
4. Updated forecast errors and distribution factors at Hungry Horse, Grand Coulee, Libby, and Dworshak, based on Appendix 8 of the 2003 POP, will be used as shown in Exhibit 10. The Operating Committee may revise forecast errors and distribution factors in accordance with subsection II(D).
5. Updated Canadian forecast errors and distribution factors, based on Appendix 8 of the 2003 POP, will be used, as shown in Exhibit 7.
6. For current and future months, Coulee pumping flows from the 1 February 2008 PNCA data submittal, or current forecast values if available, and actual values for after-the-fact months will be used. Adjustments to return flows are not needed because the observed streamflows and streamflow forecasts include return flows.
7. Updated plant data for Mica Storage/Elevation table from the Feb. 2008 NWPP proposal to use 19 data points from the DOP exhibit 15, and from the Canadian Entity Feb. 1, 2008, data submittal, the Arrow Head vs. H/K and Head vs. Gmax tables, and adding a data point to the Duncan storage/elevation table. From the Canadian Entity in March 2008, updated Kootenay Lake Storage/Maximum Discharge (MD), and from the Canadian Entity Feb. 1, 2005, data submittal, updated plant data for Brilliant Flow vs. Gmax.
8. Updated Grand Coulee and Hungry Horse Storage/Elevation tables to the Feb. 1, 2008 PNCA data submittal, which includes a reduction in total usable storage at Hungry Horse of 45.1 ksfd due to no longer including the assumption of 3% bank storage. The AOP09 rule curves for Hungry Horse will be adjusted to subtract 45.1 ksfd from all values, limited to empty, to avoid impact on system storage operation due to the updated data. Similarly, the 31 July 2008 Hungry Horse storage content from the TSR08, which is the initial content for TSR09, will be adjusted to subtract 45.1 ksfd. In the event that the adjustment to Hungry Horse rule curves causes additional Canadian draft in the TSR, which might happen during system operation below the 3rd year critical rule curve, the Operating Committee shall agree on a procedure to modify the TSR to prevent the additional Canadian draft.
9. Forecasted streamflows as a percentage of 71-year medians from the 2000 Modified Flows without Grand Coulee pumping will be used.
10. The hydro regulation model used will be PCHYDSIM version 28, or later version

if agreed by the Operating Committee.

11. During the flood control evacuation period, the flood control curves at Grand Coulee may be adjusted to recognize drafts below flood control levels at upstream storage reservoirs (including Canadian Treaty projects) in accordance with the November 2007 “Standard Operating Procedure for Computation of Flood Control Criteria for Canadian Treaty Storage Regulation and Actual Energy Regulation Models.” During refill, the flood control space requirement of Canadian Treaty reservoirs will not be greater than the flood control space requirement at the end of flood control evacuation. Flood control rule curves at Coeur d’Alene Lake (Post Falls) will be updated to the 1 February 2001 PNCA data submittal.
12. Flood control curves at Hungry Horse will be updated to reflect zero percent bank storage.
13. Dworshak operation was updated to be the same as the AOP12, which is consistent with the 1 February 2006 PNCA data submittal. This operation replaces the minimum flow requirement for Lower Granite that was in the AOP09.

Although not changed from the AOP09, some notable assumptions for this TSR include:

14. U.S. flood control curves will include VarQ at Hungry Horse but not at Libby, and will not include Variable End-of-December flood control rule curves at Libby or shifted flood control from Brownlee and/or Dworshak to Grand Coulee.
15. The Canadian flood control curves will not include impacts due to Duncan February flood control variance, VarQ and Variable End-of-December flood control rule curves at Libby or any impacts related to shifting of flood control from Brownlee and/or Dworshak to Grand Coulee unless otherwise agreed by the Operating Committee.
16. Arrow Project Operating Criteria will be updated based on the procedures defined in subsection VII(B)7 of this DOP.
17. Brownlee’s storage operation will be based on critical rule curves and energy content curves included in the AOP09, but the project minimum outflows will be calculated based on the minimum flow requirement at Lime Point.

The TSR includes the operating guides and limits listed in Sections VI and VII of this DOP.

D. Authorization for Changes to the TSR

The Operating Committee is authorized to modify the TSR only as needed to correct errors or omissions, update forecast data and procedures, and update the hydroregulation model.

E. Libby

Libby operating limits and the expected operation of the Libby project are not included in the DOP. That information is available in the Libby Operating Plan that will be updated by the U.S. Entity when planned operations change. The operation of Libby in the

TSR09 will be based on the AOP09 Step 1 operating criteria.

III. POWER DELIVERIES

A. Delivery of the Canadian Entitlement

The obligation of the United States to return the Canadian Entitlement to Canada for the Operating Year based on the AOP09 is:

$$\begin{array}{rcl} \text{Dependable Capacity} & = & 1,245.2 \text{ MW} \\ \text{Average Annual Usable Energy} & = & 464.9 \text{ aMW} \end{array}$$

Arrangement for the delivery of this Canadian entitlement power, including the point of delivery, transmission losses, and scheduling guidelines, are defined by the Aspects Agreement, and Articles V and VIII of the Columbia River Treaty. Section 11 of Attachment B to the Aspects Agreement delegates to the Operating Committee the responsibility for modifying or amending Attachment B - Scheduling Guidelines, as needed from time to time.

B. LCA Power

In accordance with Section 7(b) of the LCA, the Canadian Entity shall deliver to the U.S. Entity one (1) average MW, shaped flat, during the Operating Year. In accordance with Section 10 of the LCA, the Entities shall deliver and receive power relating to the provisional draft of Arrow reservoir. The Entities hereby authorize B.C. Hydro and BPA to make suitable arrangements for delivery of LCA power at the points of interconnection between B.C. Hydro and the Federal Columbia River Transmission System.

C. Operational Agreement Power

In accordance with Section IV of this DOP, the Entities shall make arrangements to deliver and/or receive power required by any SOA. The Entities hereby authorize B.C. Hydro and BPA to make suitable arrangements for delivery of Operational Agreement Power at the points of interconnection between B.C. Hydro and the Federal Columbia River Transmission System.

IV. STORAGE OPERATION

A. Operation Authority

The operation of Canadian storage by the Operating Committee during the period 1 August 2008 through 31 July 2009 shall be in accordance with this DOP, the FCOP, the LCA, and any SOA applicable to this Operating Year. Consistent with the operating objectives in this section, the Operating Committee is authorized to enter into SOA's consistent with the objectives defined in subsection IV(C) on behalf of the Entities that store above or draft below end-of-month TSR levels, and may include the delivery of power, for mutual benefits that occur during the period covered by this DOP.

B. Canadian Storage Operation

The Weekly Treaty Storage Operation Agreements shall be based on operating Canadian storage to the end-of-month contents contained in the current TSR study, plus any

operations under SOA's and the LCA (as described in subsections C and D below) or as required by the FCOP.

From time to time, due to updated forecasts or differences between forecast and actual inflows, the actual operation of Treaty composite storage will differ from the end of period storage prescribed by the TSR as modified by SOA, LCA, or flood control operations. The Operating Committee will make reasonable efforts to correct these inadvertent differences via the regular Weekly Treaty Storage Operation Agreements in a timely manner without exceeding the specified project limits for discharges and ramp-rates.

C. Objectives for Supplemental Operating Agreements

Consistent with the FCOP and operating limits defined in Section VII of this DOP, the objectives for SOA's include the following.

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 non-power objectives. When appropriate, the Operating Committee will make suitable arrangements for delivery of power relating to sharing of benefits from operational agreements.

2. Non-power Objectives:

Potential Canadian non-power objectives may include, but are not limited to, whitefish and trout spawning downstream of Arrow, dust storm avoidance upstream of Arrow, and recreation needs. Potential U.S. non-power objectives may include, but are not limited to, storage of water up to 1.233 km³ (1 Maf) for anadromous fish flow augmentation, minimum flows at Bonneville dam and at Vernita Bar for fish spawning, and recreation needs. Non-power objectives considered in this section do not include flood control and operating limits in Section VII.

Recognizing that it may not be possible to meet all non-power 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 the Treaty storage operation.

Operations designed to help meet non-power objectives do not imply that either Entity acknowledges any obligation, domestic or international, to meet those objectives. The Entities agree that operations for non-power objectives do 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.

D. Provisional Draft at Arrow

The Canadian Section of the Operating Committee may provisionally draft from Arrow reservoir below TSR levels in accordance with Section 10 of the LCA.

E. General Storage Operation Guidelines

The values used in the Assured Operating Plan studies to define the various rule curves were period-end values only. In actual operation, it is necessary to operate in such a manner during the course of each period that these period-end values can be achieved in

accordance with the operating rules. Due to the normal variation of power load and streamflow during any period, straight-line interpolation between the period-end points should not be assumed. During the storage drawdown season, Canadian storage should not be drafted below its period-end point at any time during the period unless it can be conservatively demonstrated that sufficient inflow is available, in excess of the minimum outflow required to serve power demand, to refill the reservoir to its end-of-period values as required.

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 fifth working day of each month, as required. The Operating Committee may request forecasts of seasonal runoff volume at periods other than those representing month-end conditions if hydrologic conditions warrant. Seasonal runoff volume forecasts for the Columbia River at The Dalles, Oregon, shall be made available by the U.S. Section no later than the fifth 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 nine working days and the last eight working days of each month, unless otherwise agreed by the Operating Committee). Actual unregulated streamflows and forecasted unregulated streamflows will be updated for each TSR study. Variable refill curves, flood control storage evacuation requirements, and variable flood control refill curves will be updated for the first TSR of the month. At the request of either section of the Operating Committee, additional TSR studies shall be performed to reflect the most current unregulated streamflow forecasts and rule curves. The Operating Committee shall agree on procedures for developing streamflow forecasts and rule curves at that time.

Errors and omissions in the TSR will be handled as follows, unless otherwise agreed:

1. All identified errors, omissions, or revisions in the TSR issued during the current Operating Year should be documented and reported to the Operating Committee.
2. Errors/omissions identified within two working days of the initial TSR distribution which, in the view of either Section, may affect the final TSR for the previous operation period or which may impact operations prior to issuance of the next TSR, should be corrected immediately and the TSR re-run. If such errors/omissions are identified after the two-day review period, the TSR will be corrected only if requested by either Section of the Operating Committee.

3. Errors/omissions that do not affect the final TSR for the previous period or impact operations prior to issuance of the next TSR should be corrected in the subsequent TSR.
4. Errors/omissions that affect periods previously finalized and which result in a significant impact to the TSR in future periods, should be brought to the attention of the Operating Committee for resolution.

During the Flood Control Storage Evacuation Period and the Flood Control Refill period, project Flood Control Curves will be determined through 31 July by the Columbia Basin Water Management Division, Northwestern Division, U.S. Army Corps of Engineers, in accordance with the FCOP. 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. Storage Regulation for Power Operations

- a) Timing: A preliminary request will be made not later than noon each Thursday, followed by a final agreement by noon Friday, or the last working day of the week.
- b) Confirmation: The agreed operation will be confirmed in a Weekly Treaty Storage Operation Agreement transmitted via electronic mail or fax on Friday, or the last working day of the week, in accordance with the following format unless otherwise agreed:

This message confirms our verbal agreement on _____ (date)
that the _____ (storing/drafting) of an estimated _____ ksfd _____ (in/from)
the whole of Canadian storage for the Period _____ through _____ is
consistent with the Detailed Operating Plan (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 of the whole of Canadian storage is based on the _____ (date)
DOP TSR expected end-of-_____ (month, except split April & August)
storage level for the whole of Canadian storage of _____ ksfd.
This operation includes expected _____ (storage above/draft below) the

end-of-_____ (month, except April & August) DOP TSR level for the whole of Canadian storage of _____ ksf.

Treaty discharges 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 Treaty water agreed to is released from Arrow plus Duncan reservoir provided an amount equal to or greater than the water released from Duncan reservoir is concurrently discharged from Kootenay Lake.

- c) SOA's and LCA: The Weekly Treaty Storage Operation Agreements shall indicate storage operations under any SOA or LCA activity.
 - d) Period Covered by Weekly Treaty Storage Operation Agreement: The period covered by the agreement shall be from Saturday following the date of the weekly request to the following Friday.
 - e) 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 reservoir elevation and storage capacity tables for Duncan (Exhibit 12), Arrow (Exhibit 13), and Mica (Exhibit 14). The change in Arrow storage content will be determined using the recorded reservoir elevation at the gauge near Fauquier, B.C.
 - 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. In accordance with Section 12 of the LCA, the Canadian Section shall implement at the request of the U.S. Section, up to five (5) mid-week requests for changes to the Canadian storage operation, consistent with this DOP and operating agreements entered into pursuant to this DOP. In addition, upon receipt of the preliminary weekly request each Thursday, the Canadian Section may request a modification to the current week's Treaty Storage Operation as may be necessary to meet flow ramping and fish salvage requirements in transitioning project releases from one Treaty week into the next, subject to agreement by the U.S. Section.
 - g) Provisional Draft: A preliminary request by the Canadian Section for provisional draft from Arrow reservoir, in accordance with Section 10 of the LCA, shall be made concurrent with the preliminary flow request. The provisional draft request will be confirmed not later than 2:00 pm on Thursday, and subsequently documented in the Weekly Treaty Storage Operation Agreement.
 - h) Non-routine Operation: Any special operation that is agreed to by the Operating Committee will be suitably documented.
2. Storage Regulation during Flood Control
- a) Forecasts: Daily time-step streamflow forecasts will be accomplished by use

of computer simulation by the National Weather Service River Forecast Center. The regulation center required by the FCOP for the flood regulation will be located in the Columbia Basin Water Management Division, Northwestern Division, U.S. Army Corps of Engineers offices in Portland, Oregon.

- b) Requests for Project Outflows: Pursuant to the operating rules in the FCOP, the outflows from individual Canadian storage projects may be specified, as outlined in the FCOP. 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. Requests for project outflows will be determined by methods as agreed upon, and documented with a confirmation agreement by a message transmitted via e-mail or Fax from the Corps of Engineers, in Portland, Oregon. The Canadian Section of the Operating Committee or their representative will make acknowledgment of this agreement via e-mail 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.
- c) 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 FCOP 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 flood control rule curve, then an appropriate outflow schedule for that reservoir will be determined to ensure that the reservoir will be drafted to its flood control rule curve as soon as feasible.

VI. OPERATING GUIDES

A. Operating Rule Curve

The ORC for the whole of Canadian storage shall be the sum of the ORC's for each of Duncan, Arrow, and Mica. The ORC for each of the Duncan, Arrow, and Mica Reservoirs during the period 1 August 2008 through 31 July 2009 is determined in accordance with the reference documents of Section I, and is defined as follows:

1. During the period 1 August 2008 through 31 December 2008, the ORC is the higher of the First Critical Rule Curve or the Assured Refill Curve.
2. During the period 1 January 2009 through 31 July 2009, the ORC is the higher of

the First Critical Rule Curve or the Assured Refill Curve, unless the Variable Refill Curve (VRC) is below the higher of the above two curves; then it is defined by the VRC.

3. During the period 1 January 2009 through 15 April 2009, the ORC will not be lower than the Operating Rule Curve Lower Limit 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 month in the Operating Year, the ORC will not be higher than the Flood Control 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 Mica Project Operating Criteria tabulated with specified qualifications in Section VII(C). Differences between Mica's storage operation and its ORC (or Proportional Draft Point (PDP) if different) shall be balanced with equal and opposite changes to Arrow's ORC (or PDP) to the extent possible within agreed Operating Limits. The obligation to operate Mica and Arrow 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 VRC's for Arrow, Duncan, and Mica shall be constructed based on procedures, power discharge requirements, and Variable Refill Curve Lower Limits as specified in Exhibit 7 (Total Inflow Method), except that the Operating Committee, in consideration of mutually beneficial operating arrangements, may agree to use an alternate procedure for Arrow which uses Arrow local inflows (Arrow Local Inflow Method) as follows.
 - a) If the current TSR study shows for the end of the current month that 1) the projected Mica Treaty storage content is lower than its ORC, and 2) the Coordinated System draft point is on the ORC, then the TSR shall be rerun with Arrow's VRC calculated as follows:
 - i) The forecast volume of inflow for Arrow will exclude the volume of inflow above the Mica project. This Arrow local inflow volume will be reduced by a forecast error such that there is a 95 percent probability that the reduced forecast is equaled or exceeded.
 - ii) The total Mica target outflow as specified in VII(C) will be added to the forecast volume described in a(i) above.
 - iii) In computing water available for refill of Arrow Reservoir the power discharge requirements for Arrow as specified in Exhibit 7 will be deducted from the volume calculated in a(ii).
 - b) During any period when the Arrow Local Inflow Method is used, the Mica/Arrow balancing (as described in subsection VI(A)5) is not used. This is implemented in BPA's hydro regulation model by setting the composite

ORC for Canadian storage equal to the Mica Treaty storage content as defined in subsection VII(C), plus the ORC at Arrow and Duncan.

B. Rule Curves and Operating Data

Rule Curves and operating data are shown in both English and SI (Metric) units. SI values are displayed with either one or two decimal places to assure consistency with English units and do not imply that level of precision.

- | | |
|---|------------|
| 1. Assured Refill Curve for Duncan, Arrow, and 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. Operating Rule Curve Lower Limits based on 1936-37 Hydro Conditions. | Exhibit 6 |
| 7. Variable Refill Curve Procedures. | Exhibit 7 |
| 8. Coordinated System Loads and Resources Used in the TSR | Exhibit 8 |
| 9. TSR Critical Rule Curves for Other Major Projects | Exhibit 9 |
| 10. U.S. PDR's, VRCLL's, Forecast Errors and Distribution Factors | Exhibit 10 |
| 11. U.S. Operating Rule Curve Lower Limits based on 1936-37 Hydro Conditions. | Exhibit 11 |
| 12. Composite Canadian Storage Contents from the DOP09 70-Year Continuous TSR hydroregulation study | Exhibit 12 |

C. 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 |

VII. OPERATING LIMITS

A. Duncan Project

1. Maximum outflow is 566.34 m³/s (20,000 cfs) through outlets but limited to 283.17 m³/s (10,000 cfs) each month in the TSR model.
2. Minimum average weekly outflow is 2.83 m³/s (100 cfs).
3. Maximum rate of change in outflow is normally 113.27 m³/s (4,000 cfs) per day unless a larger change is necessary to accomplish the objectives of the FCOP.
4. Normal full pool elevation is 576.68 m (1,892.0 feet).
5. Normal minimum pool elevation is 546.87 m (1,794.2 feet).
6. Normal maximum reservoir average monthly draft rate in elevation during any month is limited to 0.30 m (1 foot) per day.

B. Arrow Project

1. Maximum outflow is limited to physical capability only, except during January when Attachment C to the LCA requires that outflows in actual operations be limited to a maximum of 2,265 m³/s (80,000 cfs) unless otherwise agreed or higher outflows are needed to meet flood control requirements.
2. Minimum average weekly outflow is 141.58 m³/s (5,000 cfs).
3. Maximum rate of change in outflow is normally 424.75 m³/s (15,000 cfs) per day unless a larger change is necessary to accomplish the objectives of the FCOP.
4. Normal full pool elevation is 440.13 m (1,444.0 feet).
5. Normal minimum pool elevation is 419.98 m (1,377.9 feet).
6. Normal maximum reservoir average monthly draft rate in elevation during any month is limited to 0.30 m (1 foot) per day.
7. The Arrow reservoir storage operation in the TSR will be limited to a maximum storage level defined by the Arrow Project Operating Criteria (APOC) during the period January through June. The APOC shall be calculated as follows:
 - a) During January through March, the APOC will be determined using the following table and the forecast of unregulated April through August volume runoff at The Dalles.

The Dalles Apr-Aug		Arrow Project Operating Criteria Maximum Storage					
Inflow Volume		km ³			Maf		
km ³	Maf	31-Jan	28-Feb	31-Mar	31-Jan	28-Feb	31-Mar
0	0	7.524	7.524	7.524	6.100	6.100	6.100
78.9	64	7.524	7.524	7.524	6.100	6.100	6.100
80.2	65	7.397	7.281	7.154	5.997	5.903	5.800
86.4	70	6.845	6.230	5.551	5.549	5.051	4.500
92.5	75	6.292	5.179	3.947	5.101	4.199	3.200
98.7	80	5.783	4.209	2.467	4.688	3.412	2.000
1233.5	1000	5.783	4.209	2.467	4.688	3.412	2.000

For intermediate forecast volumes, the APOC will be interpolated linearly between the values shown above.

- b) During April through June, the APOC will be based on the same monthly percent refill as the April through June Arrow Upper Rule Curve (URC). For example:

April APOC = March APOC + (Full – March APOC) * April URC Percent Refill

Where April URC Percent Refill = (April URC – March URC) / (Full – March URC)

- c) The APOC storage levels shall be less than or equal to the URC.

C. Mica Project

The Mica Project Treaty storage operation in the TSR will be according to the Mica Project Operating Criteria shown in the following table except as qualified in subsections VII(C)1 through VII(C)6.

1. VRC's shall be constructed according to Exhibit 7 with the 31 July Treaty storage content of 8,634.5 hm³ (3,529.2 ksf). However, the Operating Committee may agree to set Mica's VRC July refill target equal to the Mica End of Month Storage Content of 8,267.6 hm³ (3,379.2 ksf) indicated on the following "Mica Project Operating Criteria" table.
2. Mica project operation will be determined by the End of Previous Month Arrow Storage Content as shown in the following table, except for the limitations or changes required by subsections VII(C)3 through VII(C)6. The End of Previous Month Arrow Storage Content shall be determined from the current TSR study, except when the Arrow Local Inflow Method was used for the prior month the TSR with the Arrow Total Inflow Method shall be used. Mica's target operation will be defined either by a Target End of Month Storage Content or a Target Month Average Outflow.
3. Mica operation to the Target End-of-Month Treaty Storage Contents shall be limited by the Minimum and Maximum Outflows shown in the following table, unless needed to accomplish the objectives of the FCOP.
4. Mica operation to the Target Month 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 below, 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. Mica outflows will be increased during the months October through July as required to avoid violation of the Flood Control Rule Curve.
6. Treaty storage releases from Mica in excess of 8.634 km³ (7 Maf) that result from operating Mica under the criteria described in VII(C)2 through VII(C)6 above will be retained in the Arrow reservoir, subject to flood control and minimum flow requirements at Arrow, and Mica will be reduced to Minimum Outflow as required to minimize releases in excess of 8.634 km³ (7 Maf). The total combined storage draft from Mica and Arrow will not exceed 17.392 km³ (14.1 Maf) unless flood control or minimum flow criteria at Arrow will not permit the excess Mica storage releases to be retained at Arrow. If such a release should occur, the target Mica operation will remain as specified in Mica Project Operating Criteria, and the excess release will be returned as soon as the operating criteria permit.

MICA PROJECT OPERATING CRITERIA (English)

Month	Target Operation		Target Operation Limits		
	End of Previous Month Arrow Storage Content (ksfd)	Month Average Outflow (cfs)	End-of-Month Storage Content 1/ (ksfd)	Minimum Target Treaty Storage Content 2/ (ksfd)	Minimum Outflow (cfs)
August 1-15	3,570 - FULL	-	3,454.2	-	34,000
	2,390 - 3,570	25,000	-	0.0	-
	0 - 2,390	32,000	-	0.0	-
August 16-31	3,570 - FULL	-	3,529.2	-	-
	3,450 - 3,570	-	3,364.2	-	34,000
	3,000 - 3,450	25,000	-	0.0	-
September	0 - 3,000	32,000	-	0.0	-
	3,570 - FULL	-	3529.2	-	-
	3,390 - 3,570	22,000	-	0.0	-
October	2,510 - 3,390	27,000	-	0.0	-
	0 - 2,510	32,000	-	0.0	-
	3,570 - FULL	-	3,428.4	-	34,000
November	3,120 - 3,570	20,000	-	0.0	-
	750 - 3,120	22,000	-	0.0	-
	0 - 750	32,000	-	0.0	-
December	3,450 - FULL	20,000	-	0.0	-
	3,020 - 3,450	19,000	-	0.0	-
	630 - 3,020	25,000	-	0.0	-
January	0 - 630	32,000	-	0.0	-
	3,340 - FULL	25,000	-	390.1	-
	2,870 - 3,340	22,000	-	390.1	-
February	900 - 2,870	27,000	-	390.1	-
	0 - 900	32,000	-	390.1	-
	2,740 - FULL	24,000	-	134.1	-
March	2,530 - 2,740	26,000	-	134.1	-
	1,630 - 2,530	28,000	-	134.1	-
	0 - 1,630	30,000	-	134.1	-
April 1-15	1,510 - FULL	21,000	-	164.1	-
	1,350 - 1,510	25,000	-	164.1	-
	1,140 - 1,350	20,000	-	164.1	-
April 16-30	0 - 1,140	26,000	-	164.1	-
	620 - FULL	18,000	-	120.3	-
	480 - 620	19,000	-	120.3	-
May	70 - 480	20,000	-	120.3	-
	0 - 70	22,000	-	120.3	-
	1,000 - FULL	18,000	-	15.3	-
June	960 - 1,000	27,000	-	15.3	-
	770 - 960	12,000	-	15.3	-
	0 - 770	18,000	-	15.3	-
July	920 - FULL	12,000	-	0.0	-
	490 - 920	15,000	-	0.0	-
	20 - 490	12,000	-	0.0	-
August	0 - 20	15,000	-	0.0	-
	1,140 - FULL	10,000	-	0.0	-
	680 - 1,140	15,000	-	0.0	-
September	0 - 680	10,000	-	0.0	-
	1,820 - FULL	10,000	-	0.0	-
	1,590 - 1,820	15,000	-	0.0	-
October	1,090 - 1,590	10,000	-	0.0	-
	0 - 1,090	15,000	-	0.0	-
	3,340 - FULL	-	3,379.2	-	34,000
November	2,250 - 3,340	-	3,317.2	-	34,000
	1,520 - 2,250	19,000	-	0.0	-
	0 - 1,520	30,000	-	0.0	-

Notes: 1/ If the Mica target End-of-Month Storage Content target is less than 3529.2 ksfd, then a maximum outflow of 34,000 cfs will apply. These maximum flows may be exceeded for flood control.

2/ For month average outflow target operation, Mica outflows will be reduced to minimum to maintain the reservoir above the Minimum Target Treaty Storage Content.

MICA PROJECT OPERATING CRITERIA (SI)

Month	Target Operation			Target Operation Limits		
	End of Previous Month Arrow Storage Content (hm ³)	Month Average Outflow (m ³ /s)	End-of-Month Storage Content 1/ (hm ³)	Minimum Target Treaty Storage Content 2/ (hm ³)	Maximum Outflow (m ³ /s)	Minimum Outflow (m ³ /s)
August 1-15	8734.4 - FULL	-	8451.0	-	962.77	424.75
	5847.4 - 8734.4	707.92	-	0.0	-	424.75
	0.0 - 5847.4	906.14	-	0.0	-	424.75
August 16-31	8734.4 - FULL	-	8634.5	-	-	424.75
	8440.8 - 8734.4	-	8230.9	-	962.77	424.75
	7339.8 - 8440.8	707.92	-	0.0	-	424.75
	0.0 - 7339.8	906.14	-	0.0	-	424.75
September	8734.4 - FULL	-	8634.5	-	-	283.17
	8294.0 - 8734.4	622.97	-	0.0	-	283.17
	6141.0 - 8294.0	764.55	-	0.0	-	283.17
	0.0 - 6141.0	906.14	-	0.0	-	283.17
October	8734.4 - FULL	-	8387.9	-	962.77	283.17
	7633.4 - 8734.4	566.34	-	0.0	-	283.17
	1835.0 - 7633.4	622.97	-	0.0	-	283.17
	0.0 - 1835.0	906.14	-	0.0	-	283.17
November	8440.8 - FULL	566.34	-	0.0	-	283.17
	7388.7 - 8440.8	538.02	-	0.0	-	283.17
	1541.4 - 7388.7	707.92	-	0.0	-	283.17
	0.0 - 1541.4	906.14	-	0.0	-	283.17
December	8171.6 - FULL	707.92	-	954.4	-	283.17
	7021.7 - 8171.6	622.97	-	954.4	-	283.17
	2201.9 - 7021.7	764.55	-	954.4	-	283.17
	0.0 - 2201.9	906.14	-	954.4	-	283.17
January	6703.7 - FULL	679.60	-	328.1	-	283.17
	6189.9 - 6703.7	736.24	-	328.1	-	283.17
	3988.0 - 6189.9	792.87	-	328.1	-	283.17
	0.0 - 3988.0	849.50	-	328.1	-	283.17
February	3694.4 - FULL	594.65	-	401.5	-	283.17
	3302.9 - 3694.4	707.92	-	401.5	-	283.17
	2789.1 - 3302.9	566.34	-	401.5	-	283.17
	0.0 - 2789.1	736.24	-	401.5	-	283.17
March	1516.9 - FULL	509.70	-	294.3	-	283.17
	1174.4 - 1516.9	538.02	-	294.3	-	283.17
	171.3 - 1174.4	566.34	-	294.3	-	283.17
	0.0 - 171.3	622.97	-	294.3	-	283.17
April 1-15	2446.6 - FULL	509.70	-	37.4	-	311.49
	2348.7 - 2446.6	764.55	-	37.4	-	311.49
	1883.9 - 2348.7	339.80	-	37.4	-	311.49
	0.0 - 1883.9	509.70	-	37.4	-	311.49
April 16-30	2250.9 - FULL	339.80	-	0.0	-	283.17
	1198.8 - 2250.9	424.75	-	0.0	-	283.17
	48.9 - 1198.8	339.80	-	0.0	-	283.17
	0.0 - 48.9	424.75	-	0.0	-	283.17
May	2789.1 - FULL	283.17	-	0.0	-	283.17
	1663.7 - 2789.1	424.75	-	0.0	-	283.17
	0.0 - 1663.7	283.17	-	0.0	-	283.17
June	4452.8 - FULL	283.17	-	0.0	-	283.17
	3890.1 - 4452.8	424.75	-	0.0	-	283.17
	2666.8 - 3890.1	283.17	-	0.0	-	283.17
	0.0 - 2666.8	424.75	-	0.0	-	283.17
July	8171.6 - FULL	-	8267.6	-	962.77	283.17
	5504.9 - 8171.6	-	8115.9	-	962.77	283.17
	3718.8 - 5504.9	538.02	-	0.0	-	283.17
	0.0 - 3718.8	849.50	-	0.0	-	283.17

Notes:

1/ If the Mica target End-of-Month Storage Content is less than 8634.5 hm³, then a maximum outflow of 962.77 m³/s will apply. These maximum flows may be exceeded for flood control.

2/ For month average outflow target operation, Mica outflows will be reduced to minimum to maintain the reservoir above the Minimum Target Treaty Storage Content.

EXHIBITS**Exhibit 1 - Assured Refill Curves (English) 1/**

Month	DUNCAN					MICA						ARROW					
	1931 Inflow cfs 3/	PDR cfs 4/	Water Available for Refill		ARC ksfd	1931 Inflow cfs	PDR cfs 4/	Water Available for Refill		CRC1 ksfd	ARC ksfd	1931 Inflow cfs	PDR cfs 4/	Water Available for Refill		MICA Refill ksfd 2/	ARC ksfd
			cfs	ksfd				cfs	ksfd					cfs	ksfd		
July	7320	2465	4855	150.5	705.8	56494	56466	28	0.9	3017.4	3529.2	88803	68385	20418	633.0	0.9	3579.6
June	8030	3030	5000	150.0	555.3	60134	20819	39315	1179.5	2126.3	3528.3	114432	68580	45853	1375.6	1179.5	2947.5
May	5170	106	5064	157.0	405.3	28065	6167	21898	678.8	492.7	2348.9	69071	10761	58310	1807.6	678.8	2751.4
Apr2	1137	100	1037	15.6	248.3	7218	8494	-1276	-19.1	32.4	1670.0	20470	56663	-36193	-542.9	-19.1	1622.6
Apr1	825	100	725	10.9	232.8	4666	3000	1666	25.0	220.3	1689.2	12047	5000	7047	105.7	25.0	2146.4
Mar	555	100	455	14.1	221.9	3218	3000	218	6.8	582.2	1664.2	7849	5000	2849	88.3	6.8	2065.6
Feb	428	100	328	9.2	207.8	2589	3000	-411	-11.5	706.0	1657.4	5759	5000	759	21.3	-11.5	1984.1
Jan	428	100	328	10.2	198.6	2834	3000	-166	-5.1	1522.5	1668.9	6451	5000	1451	45.0	-595.8	1951.3
Dec	461	100	361	11.2	188.4	3531	3000	531	16.5	2264.7	1674.1	6480	5000	1480	45.9	-738.4	1310.6
Nov	684	100	584	17.5	177.2	5176	3000	2176	65.3	3003.1	1657.6	9369	5000	4369	131.1	-398.5	526.3
Oct	1089	100	989	30.7	159.7	8761	3000	5761	178.6	3401.6	1592.3	14427	5000	9427	292.2	-127.6	0.0
Sep	2310	100	2210	66.3	129.1	23080	3000	20080	602.4	3529.2	1413.8	38807	5000	33807	1014.2	13.3	0.0
Aug2	3875	100	3775	60.4	62.8	39436	3000	36436	583.0	3515.9	811.4	61741	5000	56741	907.9	-13.3	0.0
Aug1	5228	100	5128	76.9	2.4	52209	3000	49209	738.1	3529.2	228.4	81724	5000	76724	1150.9	3529.2	0.0

Exhibit 1M - Assured Refill Curves (SI) 1/

Month	DUNCAN					MICA						ARROW					
	1931 Inflow	PDR	Water Available for Refill		ARC	1931 Inflow	PDR	Water Available For Refill		CRC1	ARC	1931 Inflow	PDR	Water Available For Refill		MICA Refill	ARC
			m³/s 3/	m³/s				m³/s	hm³					m³/s	hm³		
July	207.29	69.80	137.48	368.2	1726.8	1599.74	1598.94	0.79	2.1	7382.4	8634.5	2514.60	1936.45	578.17	1548.6	2.1	8757.8
June	227.38	85.80	141.58	367.0	1358.6	1702.80	589.53	1113.28	2885.6	5202.2	8632.4	3240.36	1941.97	1298.41	3365.5	2885.6	7211.4
May	146.40	3.00	143.40	384.1	991.6	794.72	174.63	620.08	1660.8	1205.4	5746.8	1955.86	304.72	1651.15	4422.5	1660.8	6731.5
Apr2	32.20	2.83	29.36	38.1	607.5	204.39	240.52	-36.13	-46.8	79.3	4085.9	579.65	1604.52	-1024.87	-1328.2	-46.8	3969.8
Apr1	23.36	2.83	20.53	26.6	569.5	132.13	84.95	47.18	61.1	539.0	4132.8	341.13	141.58	199.55	258.6	61.1	5251.3
Mar	15.70	2.83	12.88	34.5	542.9	91.12	84.95	6.17	16.5	1424.4	4071.6	222.24	141.58	80.67	216.1	16.5	5053.8
Feb	12.12	2.83	9.29	22.5	508.3	73.32	84.95	-11.64	-28.2	1727.3	4055.1	163.09	141.58	21.49	52.0	-28.2	4854.2
Jan	12.12	2.83	9.29	24.9	485.9	80.25	84.95	-4.70	-12.6	3724.9	4083.2	182.67	141.58	41.09	110.1	-1457.6	4774.1
Dec	13.05	2.83	10.22	27.4	461.0	100.00	84.95	15.04	40.3	5540.8	4095.8	183.49	141.58	41.91	112.3	-1806.6	3206.5
Nov	19.37	2.83	16.54	42.9	433.6	146.55	84.95	61.62	159.7	7347.4	4055.6	265.30	141.58	123.72	320.7	-975.0	1287.6
Oct	30.85	2.83	28.01	75.0	390.8	248.07	84.95	163.13	436.9	8322.4	3895.8	408.52	141.58	266.94	715.0	-312.2	0.0
Sep	65.41	2.83	62.58	162.2	315.7	653.55	84.95	568.60	1473.8	8634.5	3458.9	1098.88	141.58	957.31	2481.4	32.5	0.0
Aug2	109.73	2.83	106.90	147.8	153.5	1116.70	84.95	1031.75	1426.3	8602.0	1985.1	1748.31	141.58	1606.72	2221.2	-32.5	0.0
Aug1	148.04	2.83	145.21	188.2	5.8	1478.39	84.95	1393.44	1805.9	8634.5	558.8	2314.16	141.58	2172.58	2815.7	8634.5	0.0

Notes on Exhibit 1 and Exhibit 1M:

- 1/ The Assured Refill Curve (ARC) 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 (PDR) 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 first critical rule curve (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 the 2000 Level Modified streamflow (HydSim file).
- 4/ PDR's are from the AOP09.

Exhibit 2 - First Critical Rule Curves (English & SI)

End-of-Month Usable Storage Content

	(English) (ksfd)				(SI) (hm ³)			
Month	Mica	Arrow	Duncan	Total	Mica	Arrow	Duncan	Total
August 15	3529.2	3579.6	705.8	7814.6	8634.5	8757.8	1726.8	19119.2
August 31	3515.9	3575.4	694.8	7786.1	8602.0	8747.6	1699.9	19049.5
September	3529.2	3106.2	705.8	7341.2	8634.5	7599.6	1726.8	17961.0
October	3401.6	2847.1	651.9	6900.6	8322.4	6965.7	1594.9	16883.0
November	3003.1	2679.8	621.3	6304.2	7347.4	6556.4	1520.1	15423.9
December	2264.7	2373.6	495.5	5133.8	5540.8	5807.2	1212.3	12560.4
January	1522.5	1410	413.2	3345.7	3724.9	3449.7	1010.9	8185.6
February	706	823	338	1867.0	1727.3	2013.6	827.0	4567.8
March	582.2	622.3	131	1335.5	1424.4	1522.5	320.5	3267.4
April 15	220.3	544.7	74.3	839.3	539.0	1332.7	181.8	2053.4
April 30	32.4	601.1	82.7	716.2	79.3	1470.7	202.3	1752.3
May	492.7	1487.4	200.2	2180.3	1205.4	3639.1	489.8	5334.3
June	2126.3	3040.6	475	5641.9	5202.2	7439.1	1162.1	13803.5
July	3017.4	3485.2	645.1	7147.7	7382.4	8526.9	1578.3	17487.6

Source: First-year critical rule curves from the AOP09.

Exhibit 3 - Second Critical Rule Curves (English & SI)

End-of-Month Usable Storage Content

	(English) (ksfd)				(SI) (hm ³)			
Month	Mica	Arrow	Duncan	Total	Mica	Arrow	Duncan	Total
August 15	3479	3371.8	590.7	7441.5	8511.7	8249.4	1445.2	18206.4
August 31	3329.2	3443.2	653.7	7426.1	8145.2	8424.1	1599.3	18168.7
September	3226.6	2846	705.8	6778.4	7894.2	6963.0	1726.8	16584.0
October	2391.5	2736.8	651.9	5780.2	5851.0	6695.9	1594.9	14141.8
November	1953.1	1926.7	535.2	4415.0	4778.5	4713.9	1309.4	10801.7
December	1428.9	1347.8	494.4	3271.1	3495.9	3297.5	1209.6	8003.1
January	502.3	398.5	345.7	1246.5	1228.9	975.0	845.8	3049.7
February	79.6	83.5	145.9	309.0	194.7	204.3	357.0	756.0
March	0	0	0.1	0.1	0.0	0.0	0.2	0.2
April 15	22.9	55	12	89.9	56.0	134.6	29.4	219.9
April 30	0	183.6	22.8	206.4	0.0	449.2	55.8	505.0
May	368.6	1163.9	137.8	1670.3	901.8	2847.6	337.1	4086.6
June	825.5	2592.4	320.5	3738.4	2019.7	6342.6	784.1	9146.4
July	2595.5	3051.1	477.7	6124.3	6350.2	7464.8	1168.7	14983.7

Adjusted for Crossover 1/

Source: Second-year critical rule curves from the AOP09, except when higher than the first-year critical rule curve use the first-year critical curve.

1/ A "crossover" occurs when a critical rule curve is higher than another critical rule curve in earlier time sequence (e.g. when a second critical rule curve is higher than the first critical rule curve). During proportional draft, no individual project is permitted to refill while other projects are proportionately drafting. This is accomplished by eliminating crossovers, i.e. by reducing all subsequent critical rule curves to being no greater than previous critical rule curves.

Exhibit 4 - Third Critical Rule Curves (English & SI)

End-of-Month Usable Storage Content

	(English) (ksfd)				(SI) (hm ³)			
Month	Mica	Arrow	Duncan	Total	Mica	Arrow	Duncan	Total
August 15	2914.1	3199.8	481.4	6595.3	7129.6	7828.6	1177.8	16136.1
August 31	3034.4	3215.1	513.8	6763.3	7424.0	7866.1	1257.1	16547.1
September	3117.1	2788.1	570.4	6475.6	7626.3	6821.4	1395.5	15843.2
October	2357.6	2734.4	566.7	5658.7	5768.1	6690.0	1386.5	13844.6
November	1937.2	1926.7	476.6	4340.5	4739.6	4713.9	1166.0	10619.5
December	1281.8	1329.4	341.7	2952.9	3136.1	3252.5	836.0	7224.6
January	502.3	398.5	185.9	1086.7	1228.9	975.0	454.8	2658.7
February	74.9	83.5	89.3	247.7	183.3	204.3	218.5	606.0
March	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
April 15	21.7	55.0	2.0	78.7	53.1	134.6	4.9	192.5
April 30	0.0	54.8	0.0	54.8	0.0	134.1	0.0	134.1
May	351.5	966.7	83.5	1401.7	860.0	2365.1	204.3	3429.4
June	753.1	2095.9	50.7	2899.7	1842.5	5127.8	124.0	7094.4
July	1205.3	2680.3	60.1	3945.7	2948.9	6557.6	147.0	9653.5

Adjusted for Crossover

Source: Third-year critical rule curves from the AOP09.

Exhibit 5 - Fourth Critical Rule Curves (English & SI)

End-of-Month Usable Storage Content

	(English) (ksfd)				(SI) (hm ³)			
Month	Mica	Arrow	Duncan	Total	Mica	Arrow	Duncan	Total
August 15	1201.7	2682.1	33.9	3917.7	2940.1	6562.0	82.9	9585.0
August 31	1096.7	2614.4	46.7	3757.8	2683.2	6396.4	114.3	9193.8
September	800.3	2130.9	117.2	3048.4	1958.0	5213.5	286.7	7458.2
October	1051.4	1218.9	51.4	2321.7	2572.4	2982.2	125.8	5680.3
November	616.9	794.6	72.5	1484.0	1509.3	1944.1	177.4	3630.8
December	24.9	385.8	0.3	411.0	60.9	943.9	0.7	1005.6
January	31.1	103.6	0.0	134.7	76.1	253.5	0.0	329.6
February	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Fourth-year critical rule curves from the AOP09.

Exhibit 6 - Operating Rule Curve Lower Limits (English & SI)
End-of-Month Usable Storage Content

Month	(English) (ksfd)			(SI) (hm ³)		
	Mica	Arrow	Duncan	Mica	Arrow	Duncan
January	298.6	251.3	107.1	730.6	614.8	262.0
February	35.2	18.4	42.0	86.1	45.0	102.8
March	0.0	0.0	0.0	0.0	0.0	0.0
April 15	0.5	1.3	0.0	1.2	3.2	0.0

Source: Operating Rule Curve Lower Limits from the AOP09.

Exhibit 7 - Variable Refill Curve Procedures (English)

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 based on the ORC. The Entities have agreed to limit the VRC to be no lower than the Variable Refill Curve Lower Limit (VRCLL), which is defined by studies that optimize power production during the refill period. The VRCLL's are a function of the unregulated January through July runoff volume at The Dalles, Oregon. The following schedule for PDR's and VRCLL's will apply when computing the VRC's during the period January 1 through June 1, unless the Operating Committee agrees to use updated study results.

POWER DISCHARGE REQUIREMENTS, IN CFS, AND VARIABLE REFILL CURVE LOWER LIMITS, IN KSF, FOR JANUARY - JULY VOLUME RUNOFF OF THE COLUMBIA RIVER AT THE DALLES, OREGON

Project	Dec *	Jan	Feb	Mar	Apr	May	Jun	Jul
Mica								
ARC PDR's		3000	3000	3000	3000	8494	6167	56466
80 MAF PDR's		3000	3000	3000	3000	3000	3000	40000
95 MAF PDR's		3000	3000	3000	3000	3000	3000	40000
110 MAF PDR's		3000	3000	3000	3000	3000	3000	40000
80 MAF VRCLL's		224.9	241.3	270.8	331.0	470.1	1460.8	3529.2
95 MAF VRCLL's		39.3	0.0	20.7	27.3	0.0	681.8	3529.2
110 MAF VRCLL's		11.9	0.0	0.0	0.0	3.7	658.7	3529.2
Distribution Factors		0.976	0.980	0.976	0.982	0.966	0.791	N/A
Forecast Errors (ksfd)	741	728	522	455	420	420	401	N/A
Arrow								
ARC PDR's		5000	5000	5000	5000	56663	10761	68385
80 MAF PDR's		5000	5000	5000	5000	8000	8000	50000
95 MAF PDR's		5000	5000	5000	5000	5000	5000	50000
110 MAF PDR's		5000	5000	5000	5000	5000	5000	50000
80 MAF VRCLL's		138.7	211.9	378.4	553.0	833.0	2118.5	3579.6
95 MAF VRCLL's		14.6	0.2	18.9	32.1	26.7	1164.4	3579.6
110 MAF VRCLL's		2.0	0.0	17.2	0.0	4.7	900.0	3579.6
Distribution Factors – Total		0.974	0.977	0.971	0.975	0.952	0.743	N/A
Forecast Errors (ksfd) – Total	1659	1485	1095	954	810	810	723	N/A
Distribution Factors – Local		0.972	0.975	0.966	0.969	0.938	0.694	N/A
Forecast Errors (ksfd) - Local	1100	897	730	638	534	534	462	N/A
Duncan								
ARC PDR's		100	100	100	100	100	106	2465
80 MAF PDR's		100	500	500	500	1800	1800	3300
95 MAF PDR's		100	100	100	100	100	1800	2800
110 MAF PDR's		100	100	100	100	100	1800	2800
80 MAF VRCLL's		190.5	40.6	62.1	81.9	114.8	323.1	705.8
95 MAF VRCLL's		27.6	18.8	16.9	0.0	33.2	204.6	705.8
110 MAF VRCLL's		5.9	0.0	0.3	4.8	2.9	105.5	705.8
Distribution Factors		0.975	0.981	0.976	0.979	0.958	0.753	N/A
Forecast Errors (ksfd)	144	128	104	105	94	94	87	N/A

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) PDR's and VRCLL's are from the AOP09. Data may be revised upon completion of any Refill Studies agreed to by the Operating Committee.
 - (3) Distribution factors and forecast errors updated based on the 2003 POP Appendix 8.
- * These values are used in calculating VECC's for the TSR only prior to the forecast season.

Exhibit 7M - Variable Refill Curve Procedures (SI)

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 based on the ORC. The Entities have agreed to limit the VRC to be no lower than the Variable Refill Curve Lower Limit (VRCLL), which is defined by studies that optimize power production during the refill period. The VRCLL's are a function of the unregulated January through July runoff volume at The Dalles, Oregon. The following schedule for PDR's and VRCLL's will apply when computing the VRC's during the period January 1 through June 1, unless the Operating Committee agrees to use updated study results.

POWER DISCHARGE REQUIREMENTS, IN m³/s, AND VARIABLE REFILL CURVE LOWER LIMITS, IN hm³, FOR JANUARY - JULY VOLUME RUNOFF OF THE COLUMBIA RIVER AT THE DALLES, OREGON

Project	Dec*	Jan	Feb	Mar	Ap1	Ap2	May	Jun	Jul
Mica									
ARC PDR's		84.95	84.95	84.95	84.95	240.52	174.63	589.53	1598.94
98.68 km ³ PDR's		84.95	84.95	84.95	84.95	84.95	84.95	962.77	1132.67
117.18 km ³ PDR's		84.95	84.95	84.95	84.95	84.95	84.95	962.77	1132.67
135.69 km ³ PDR's		84.95	84.95	84.95	84.95	84.95	84.95	962.77	1132.67
98.68 km ³ VRCLL		84.95	84.95	84.95	84.95	240.52	174.63	589.53	1598.94
117.18 km ³ VRCLL		550.2	590.4	662.5	809.8	1150.1	3574.0	6908.7	N/A
135.69 km ³ VRCLL		96.2	0.0	50.6	66.8	0.0	1668.1	5620.3	N/A
Distribution Factors		0.976	0.980	0.976	0.982	0.966	0.791	0.506	N/A
Forecast Errors (hm ³)	1812.9	1780.9	1276.6	1113.7	1028.1	1028.1	982.1	971.3	N/A
Arrow									
ARC PDR's		141.58	141.58	141.58	141.58	1604.52	304.72	1941.97	1936.45
98.68 km ³ PDR's		141.58	141.58	141.58	141.58	226.53	226.53	1415.84	1415.84
117.18 km ³ PDR's		141.58	141.58	141.58	141.58	141.58	141.58	1415.84	1415.84
135.69 km ³ PDR's		141.58	141.58	141.58	141.58	141.58	141.58	1415.84	1415.84
98.68 km ³ VRCLL		339.3	518.4	925.8	1353.0	2038.0	5183.1	7436.7	N/A
117.18 km ³ VRCLL		35.7	0.5	46.2	78.5	65.3	2848.8	7226.0	N/A
135.69 km ³ VRCLL		4.9	0.0	42.1	0.0	11.5	2201.9	6615.1	N/A
Distribution Factors - Total		0.974	0.977	0.971	0.975	0.952	0.743	0.468	N/A
Forecast Errors (hm ³) - Total	4058.9	3633.4	2679.8	2334.5	1981.0	1981.0	1769.4	1662.2	N/A
Distribution Factors - Local		0.972	0.975	0.966	0.969	0.938	0.694	0.425	N/A
Forecast Errors (hm ³) - Local	2691.3	2194.8	1787.2	1561.9	1307.7	1307.7	1130.8	988.2	N/A
Duncan									
ARC PDR's		2.83	2.83	2.83	2.83	2.83	3.00	85.80	69.80
98.68 km ³ PDR's		2.83	14.16	14.16	14.16	50.97	50.97	65.13	93.45
117.18 km ³ PDR's		2.83	2.83	2.83	2.83	2.83	50.97	56.63	79.29
135.69 km ³ PDR's		2.83	2.83	2.83	2.83	2.83	50.97	56.63	79.29
98.68 km ³ VRCLL		466.1	99.3	151.9	200.4	280.9	790.5	1359.1	N/A
117.18 km ³ VRCLL		67.5	46.0	41.3	0.0	81.2	500.6	1278.8	N/A
135.69 km ³ VRCLL		14.4	0.0	0.7	11.7	7.1	258.1	1087.8	N/A
Distribution Factors		0.975	0.981	0.976	0.979	0.958	0.753	0.482	N/A
Forecast Errors (hm ³)	352.3	312.2	255.2	256.9	229.5	229.5	212.6	190.8	N/A

Notes:

- (1) If the forecasted natural January through July volume runoff at The Dalles is less than 98.7 km³, the Power Discharge Requirement in the 98.7 km³ schedule will be used. For intermediate forecasted volumes, the Power Discharge Requirement will be interpolated linearly between the values shown above.
 - (2) PDR's and VRCLL's are from the AOP09. Data may be revised upon completion of any Refill Studies agreed to by the Operating Committee.
 - (3) Distribution factors and forecast errors updated based the 2003 POP Appendix 8.
- * These values are used in calculating VECC's for the TSR only prior to the forecast season.

Exhibit 8 - Coordinated System Loads and Resources used in the TSR (Energy in aMW)

Month	PNW Area Firm Loads <u>1/</u>	Export, Imports and Resources <u>2/</u>	Coordinated Hydro Load <u>3/</u>
August 15	22854	11717	11137
August 31	22852	11688	11165
September	22030	11181	10849
October	22948	13166	9782
November	25245	14088	11157
December	27457	14266	13192
January	28050	14975	13075
February	27061	15160	11901
March	24953	13639	11315
April 15	23949	13360	10589
April 30	23925	11104	12822
May	22877	9386	13491
June	23182	9104	14079
July	23485	10762	12723

Notes: Data for columns 1, 2, and 3 are from Table 1A of the AOP09. References to line numbers in the notes below are references to lines in Table 1A of the AOP09.

- 1/ The Pacific Northwest Area Firm Load including pumping, but excluding Utah Power and Light loads in Idaho (line 1c).
- 2/ Includes total flows out (line 2g), total load served by flows-in (line 3e), load served by other resources (lines 4d – 4b), total thermal installations (line 6c), and hydro maintenance (line 7a). Other resources include hydro independents (1929 for example) that will be updated as described in subsection II(C)2.
- 3/ AOP09 Coordinated Hydro Model Load, line 7b.

Exhibit 9 – TSR Critical Rule Curves for Other Major Projects (English)

End-of-Month Usable Storage Content in ksfd

Unadjusted for Crossovers

YEAR	AUG15	AUG31	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR15	APR30	MAY	JUN	JUL
LIBBY														
1928-29	2510.5	2505.7	2362.2	2425.3	2009.4	1502.2	1446.6	1401.0	1231.8	1140.4	1148.6	1598.4	2510.5	2510.5
1929-30	2503.8	2509.8	2379.6	2358.9	2109.0	1502.1	1329.2	1259.3	1074.1	1114.8	1268.5	1745.3	2510.2	2500.2
1930-31	2497.6	2498.9	2455.5	2354.0	2114.5	1501.7	1269.6	872.6	652.8	527.1	476.2	930.5	1476.4	1684.9
1031-32	1716.7	1728.8	1687.0	1531.9	1201.7	495.6	103.1	0.0						
CORRA LINN														
1928-29	285.4	285.4	396.9	396.9	396.9	396.9	322.8	234.8	69.8	69.8	69.8	69.8	285.4	285.4
1929-30	285.4	285.4	396.9	396.9	396.9	396.9	322.8	234.8	69.8	69.8	69.8	69.8	285.4	285.4
1930-31	285.4	285.4	396.9	396.9	396.9	396.9	322.8	234.8	69.8	69.8	69.8	69.8	285.4	285.4
1031-32	285.4	285.4	396.9	396.9	396.9	396.9	322.8	57.6						
HUNGRY HORSE *														
1928-29	1503.4	1463.9	1335.6	1350.4	1340.2	1077.2	882.8	822.8	819.6	826.1	870.7	1196.7	1503.4	1503.4
1929-30	1484.9	1410.3	1238.1	1145.5	992.2	721.3	534.9	538.7	524.8	615.3	767.0	1039.4	1230.2	1135.1
1930-31	1091.4	1017.8	774.8	746.2	639.8	394.4	167.0	10.6	35.4	37.7	45.8	399.5	557.9	370.8
1031-32	309.5	212.2	130.7	125.0	126.6	31.0	0.0	0.0						
KERR														
1928-29	614.7	614.7	614.7	614.7	614.7	614.2	488.9	261.4	0.0	0.0	12.6	426.3	614.7	614.7
1929-30	614.7	614.7	614.7	614.4	614.7	585.1	418.2	286.7	0.0	0.0	218.7	426.3	614.7	614.7
1930-31	614.7	614.7	614.7	614.3	614.6	539.6	428.5	264.3	0.0	0.0	76.2	426.3	614.7	614.7
1031-32	614.7	614.7	614.7	539.8	338.5	120.5	4.1	0.0						
ALBENI FALLS														
1928-29	582.4	582.4	465.7	190.4	57.6	57.6	57.6	57.6	57.6	57.6	190.4	279.0	582.4	582.4
1929-30	582.4	582.4	465.7	190.4	57.6	57.6	57.6	57.6	57.6	57.6	190.4	279.0	582.4	582.4
1930-31	582.4	582.4	465.7	190.4	57.6	57.6	57.6	57.6	57.6	57.6	190.4	279.0	582.4	582.4
1031-32	582.4	582.4	465.7	190.4	57.6	57.6	57.6	0.0						
GRAND COULEE														
1928-29	2614.3	2531.9	2531.9	2531.9	2531.9	2490.7	2490.7	2490.7	2300.0	2343.6	1640.5	1840.0	2614.3	2614.3
1929-30	2614.3	2531.9	2531.9	2531.9	2531.9	2490.7	2490.7	2490.7	2027.0	1965.3	2295.6	2449.8	2614.3	2614.3
1930-31	2614.3	2531.9	2531.9	2531.9	2531.9	2490.7	2490.7	2490.7	2113.4	2175.7	1630.9	2353.3	2614.3	2614.3
1031-32	2614.2	2531.9	2531.9	2531.9	2531.9	2196.1	837.3	0.0						
CHELAN														
1928-29	341.5	341.5	341.5	341.5	335.9	285.8	234.3	187.0	136.4	112.0	98.2	211.0	341.5	341.5
1929-30	341.5	341.5	315.4	266.4	214.0	162.4	102.8	60.4	21.9	29.5	80.3	173.1	276.5	341.3
1930-31	341.3	341.4	309.7	260.3	211.9	160.1	110.7	65.4	22.1	7.1	2.4	130.8	194.8	247.5
1031-32	241.6	225.3	189.4	150.5	106.8	57.2	16.3	0.0						
BROWNLEE														
1928-29	432.1	455.9	448.8	491.7	491.7	491.7	478.5	392.1	442.5	467.5	491.7	344.6	491.7	393.9
1929-30	362.6	332.6	332.0	368.6	437.0	444.6	290.6	442.5	467.5	479.9	491.7	446.0	491.7	363.2
1930-31	333.8	306.5	315.6	392.7	437.0	392.1	290.6	449.4	470.9	481.3	491.7	439.7	475.8	347.6
1031-32	323.0	301.2	283.2	283.2	306.5	318.2	222.6	0.0						
DWORSKAK														
1928-29	395.8	395.8	388.6	395.3	397.5	391.3	380.5	372.4	420.8	445.2	554.1	907.8	1016.0	800.6
1929-30	673.4	530.2	385.6	379.7	365.2	379.9	367.6	417.9	510.0	693.0	867.6	1016.0	1016.0	779.7
1930-31	648.7	501.3	387.5	391.3	403.2	399.4	408.2	423.7	536.1	679.9	789.1	1016.0	1016.0	767.0
1931-32	633.5	483.8	385.6	376.7	375.9	375.4	375.4	218.4						

Note: This data is the same as in the AOP09 studies, and is provided here to verify the critical rule curves used in the TSR studies.

* Adjusted for 0% bank storage.

Exhibit 9M – TSR Critical Rule Curves for Other Major Projects (SI)
End-of-Month Usable Storage Content in hm³
Unadjusted for Crossovers

YEAR	AUG15	AUG31	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR15	APR30	MAY	JUN	JUL
LIBBY														
1928-29	6142.2	6130.4	5779.4	5933.7	4916.2	3675.3	3539.3	3427.7	3013.7	2790.1	2810.2	3910.6	6142.2	6142.2
1929-30	6125.8	6140.5	5821.9	5771.3	5159.9	3675.0	3252.0	3081.0	2627.9	2727.5	3103.5	4270.1	6141.5	6117.0
1930-31	6110.6	6113.8	6007.6	5759.3	5173.3	3674.1	3106.2	2134.9	1597.1	1289.6	1165.1	2276.6	3612.2	4122.3
1031-32	4200.1	4229.7	4127.4	3747.9	2940.1	1212.5	252.2	0.0						
CORRA LINN														
1928-29	698.3	698.3	971.1	971.1	971.1	971.1	789.8	574.5	170.8	170.8	170.8	170.8	698.3	698.3
1929-30	698.3	698.3	971.1	971.1	971.1	971.1	789.8	574.5	170.8	170.8	170.8	170.8	698.3	698.3
1930-31	698.3	698.3	971.1	971.1	971.1	971.1	789.8	574.5	170.8	170.8	170.8	170.8	698.3	698.3
1031-32	698.3	698.3	971.1	971.1	971.1	971.1	789.8	140.9						
HUNGRY HORSE *														
1928-29	3678.2	3581.6	3267.7	3303.9	3278.9	2635.5	2159.9	2013.1	2005.2	2021.1	2130.3	2927.8	3678.2	3678.2
1929-30	3633.0	3450.4	3029.1	2802.6	2427.5	1764.7	1308.7	1318.0	1284.0	1505.4	1876.5	2543.0	3009.8	2777.1
1930-31	2670.2	2490.1	1895.6	1825.7	1565.3	964.9	408.6	25.9	86.6	92.2	112.1	977.4	1365.0	907.2
1031-32	757.2	519.2	319.8	305.8	309.7	75.8	0.0	0.0						
KERR														
1928-29	1503.9	1503.9	1503.9	1503.9	1503.9	1502.7	1196.1	639.5	0.0	0.0	30.8	1043.0	1503.9	1503.9
1929-30	1503.9	1503.9	1503.9	1503.2	1503.9	1431.5	1023.2	701.4	0.0	0.0	535.1	1043.0	1503.9	1503.9
1930-31	1503.9	1503.9	1503.9	1502.9	1503.7	1320.2	1048.4	646.6	0.0	0.0	186.4	1043.0	1503.9	1503.9
1031-32	1503.9	1503.9	1503.9	1320.7	828.2	294.8	10.0	0.0						
ALBENI FALLS														
1928-29	1424.9	1424.9	1139.4	465.8	140.9	140.9	140.9	140.9	140.9	140.9	465.8	682.6	1424.9	1424.9
1929-30	1424.9	1424.9	1139.4	465.8	140.9	140.9	140.9	140.9	140.9	140.9	465.8	682.6	1424.9	1424.9
1930-31	1424.9	1424.9	1139.4	465.8	140.9	140.9	140.9	140.9	140.9	140.9	465.8	682.6	1424.9	1424.9
1031-32	1424.9	1424.9	1139.4	465.8	140.9	140.9	140.9	0.0						
GRAND COULEE														
1928-29	6396.1	6194.5	6194.5	6194.5	6194.5	6093.7	6093.7	6093.7	5627.2	5733.9	4013.6	4501.7	6396.1	6396.1
1929-30	6396.1	6194.5	6194.5	6194.5	6194.5	6093.7	6093.7	6093.7	4959.3	4808.3	5616.4	5993.7	6396.1	6396.1
1930-31	6396.1	6194.5	6194.5	6194.5	6194.5	6093.7	6093.7	6093.7	5170.6	5323.1	3990.2	5757.6	6396.1	6396.1
1031-32	6395.9	6194.5	6194.5	6194.5	6194.5	5373.0	2048.5	0.0						
CHELAN														
1928-29	835.5	835.5	835.5	835.5	821.8	699.2	573.2	457.5	333.7	274.0	240.3	516.2	835.5	835.5
1929-30	835.5	835.5	771.7	651.8	523.6	397.3	251.5	147.8	53.6	72.2	196.5	423.5	676.5	835.0
1930-31	835.0	835.3	757.7	636.8	518.4	391.7	270.8	160.0	54.1	17.4	5.9	320.0	476.6	605.5
1031-32	591.1	551.2	463.4	368.2	261.3	139.9	39.9	0.0						
BROWNLEE														
1928-29	1057.2	1115.4	1098.0	1203.0	1203.0	1203.0	1170.7	959.3	1082.6	1143.8	1203.0	843.1	1203.0	963.7
1929-30	887.1	813.7	812.3	901.8	1069.2	1087.8	711.0	1082.6	1143.8	1174.1	1203.0	1091.2	1203.0	888.6
1930-31	816.7	749.9	772.1	960.8	1069.2	959.3	711.0	1099.5	1152.1	1177.5	1203.0	1075.8	1164.1	850.4
1031-32	790.3	736.9	692.9	692.9	749.9	778.5	544.6	0.0						
DWORSHAK														
1928-29	968.4	968.4	950.7	967.1	972.5	957.4	930.9	911.1	1029.5	1089.2	1355.7	2221.0	2485.7	1958.7
1929-30	1647.5	1297.2	943.4	929.0	893.5	929.5	899.4	1022.4	1247.8	1695.5	2122.7	2485.7	2485.7	1907.6
1930-31	1587.1	1226.5	948.1	957.4	986.5	977.2	998.7	1036.6	1311.6	1663.4	1930.6	2485.7	2485.7	1876.5
1931-32	1549.9	1183.7	943.4	921.6	919.7	918.5	918.5	534.3	0.0	0.0	0.0	0.0	0.0	0.0

Note: This data is the same as in the AOP09 studies, and is provided here to verify the critical rule curves used in the TSR studies.

* Adjusted for 0% bank storage.

Exhibit 10 – PDR's in cfs, VRC Lower limits in ksfd, and 95% Confidence Forecast Errors (Hedges) and Distribution Factors (English)

Project	Median *	Dec *	Jan	Feb	Mar	Ap1	Ap2	May	Jun	Jul
Libby										
ARC PDR's			4000	4000	4000	4000	4362	4002	4000	4929
80 MAF PDR's			4000	4000	4000	4000	4000	4000	10000	10000
95 MAF PDR's			4000	4000	4000	4000	4000	4000	10000	10000
110 MAF PDR's			4000	4000	4000	4000	4000	4000	10000	10000
80 MAF VRCLL's			1455.6	1414.3	1394.2	1420.0	1301.8	1756.1	2510.6	2509.8
95 MAF VRCLL's			180.6	122.2	17.6	12.2	94.4	727.4	1747.0	2510.5
110 MAF VRCLL's			171.8	20.0	0.0	0.0	1.9	898.4	1976.6	2510.5
Distribution Factors			0.969	0.971	0.963	0.969	0.938	0.670	0.358	N/A
Hedges (ksfd)	1204	933	651	489	457	443	443	401	385	N/A
Dworshak										
ARC PDR's			1300	1300	1300	1300	1300	1300	1300	1300
80 MAF PDR's			1300	1300	1300	1300	1300	1300	1300	1300
95 MAF PDR's			1300	1300	1300	1300	1300	1300	1300	1300
110 MAF PDR's			1300	1300	1300	1300	1300	1300	1300	1300
80 MAF VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
95 MAF VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
110 MAF VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Distribution Factors			0.944	0.929	0.883	0.892	0.828	0.467	0.242	N/A
Hedges (ksfd)	856	700	627	482	345	258	258	222	136	N/A
Hungry Horse **										
ARC PDR's			400	400	400	400	400	420	5552	1380
80 MAF PDR's			400	400	400	400	400	1400	3000	3200
95 MAF PDR's			400	400	400	400	400	1400	2800	3000
110 MAF PDR's			400	400	400	400	400	1400	2800	3000
80 MAF VRCLL's			937.5	917.7	947.6	990.0	1072.3	1377.4	1503.4	1502.3
95 MAF VRCLL's			484.5	498.8	521.9	542.7	618.8	970.5	1341.1	1503.4
110 MAF VRCLL's			428.5	433.2	462.0	506.0	665.5	1090.4	1404.8	1501.8
Distribution Factors			0.972	0.973	0.962	0.955	0.900	0.552	0.245	N/A
Hedges (ksfd)	440	440	313	229	173	149	149	129	107	N/A
Grand Coulee										
ARC PDR's			30000	30000	30000	50039	82188	91934	99985	108689
80 MAF PDR's			30000	30000	30000	30000	30000	30000	30000	30000
95 MAF PDR's			30000	30000	30000	30000	30000	30000	30000	30000
110 MAF PDR's			30000	30000	30000	30000	30000	30000	30000	30000
80 MAF VRCLL's			2490.8	2490.7	2330.4	2343.6	1885.4	2155.2	2614.3	2614.2
95 MAF VRCLL's			818.2	889.9	493.0	193.5	0.0	1314.4	2614.6	2614.5
110 MAF VRCLL's			652.4	97.7	0.0	0.0	4.5	843.9	2150.3	2614.5
Distribution Factors			0.962	0.960	0.942	0.954	0.915	0.648	0.380	N/A
Hedges (ksfd)	10179	10179	7688	5656	4912	4056	4056	3288	2926	N/A
Chelan										
ARC PDR's			50	50	50	50	50	2025	2075	1958
80 MAF PDR's			50	50	50	50	50	1500	1800	2000
95 MAF PDR's			50	50	50	50	50	50	50	50
110 MAF PDR's			50	50	50	50	50	50	50	50
80 MAF VRCLL's			173.3	131.9	107.4	118.3	163.1	270.1	341.3	341.1
95 MAF VRCLL's			47.1	17.9	18.6	3.6	10.7	142.2	326.0	341.5
110 MAF VRCLL's			47.3	0.0	0.0	0.0	7.3	239.7	288.1	341.5
Distribution Factors			0.967	0.965	0.951	0.930	0.830	0.550	0.300	N/A
Hedges (ksfd)	N/A	N/A	203	180	153	66	66	64	59	N/A

Notes:

1/ PDR's and VRCLL's from the AOP09.

2/ Distribution factors and forecast errors updated based on the 2003 POP Appendix 8.

* These values are used in calculating VECC's for the TSR only prior to the forecast season.

** Adjusted for 0% bank storage.

Exhibit 10M – PDR's in m³/s , VRC Lower Limits in hm³, and 95% Confidence Forecast Errors (Hedges) and Distribution Factors (SI)

Project	Median *	Dec. *	Jan	Feb	Mar	Ap1	Ap2	May	Jun	Jul
Libby										
ARC PDR's			113.27	113.27	113.27	113.27	123.52	113.32	113.27	139.57
98.68 km ³ PDR's			113.27	113.27	113.27	113.27	113.27	113.27	283.17	283.17
117.18 km ³ PDR's			113.27	113.27	113.27	113.27	113.27	113.27	283.17	283.17
135.69 km ³ PDR's			113.27	113.27	113.27	113.27	113.27	113.27	283.17	283.17
98.68 km ³ VRCLL's			3561.3	3460.2	3411.0	3474.2	3185.0	4296.5	6142.4	6140.5
117.18 km ³ VRCLL's			441.9	299.0	43.1	29.8	231.0	1779.7	4274.2	6142.2
135.69 km ³ VRCLL's			420.3	48.9	0.0	0.0	4.6	2198.0	4835.9	6142.2
Distribution Factors			0.969	0.971	0.963	0.969	0.938	0.670	0.358	N/A
Hedges (hm ³)	2945.7	2283.2	1593.7	1195.2	1118.8	1084.3	1084.3	980.6	941.2	N/A
Dworshak										
ARC PDR's			36.81	36.81	36.81	36.81	36.81	36.81	36.81	36.81
98.68 km ³ PDR's			36.81	36.81	36.81	36.81	36.81	36.81	36.81	36.81
117.18 km ³ PDR's			36.81	36.81	36.81	36.81	36.81	36.81	36.81	36.81
135.69 km ³ PDR's			36.81	36.81	36.81	36.81	36.81	36.81	36.81	36.81
98.68 km ³ VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
117.18 km ³ VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
135.69 km ³ VRCLL's			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Distribution Factors			0.944	0.929	0.883	0.892	0.828	0.467	0.242	N/A
Hedges (hm ³)	2094.3	1713.4	1533.3	1179.3	843.8	631.5	631.5	542.7	333.0	N/A
Hungry Horse **										
ARC PDR's			11.33	11.33	11.33	11.33	11.33	11.89	157.21	39.08
98.68 km ³ PDR's			11.33	11.33	11.33	11.33	11.33	39.64	84.95	90.61
117.18 km ³ PDR's			11.33	11.33	11.33	11.33	11.33	39.64	79.29	84.95
135.69 km ³ PDR's			11.33	11.33	11.33	11.33	11.33	39.64	79.29	84.95
98.68 km ³ VRCLL's			2293.7	2245.2	2318.4	2422.1	2623.5	3369.9	3678.2	3675.5
117.18 km ³ VRCLL's			1185.4	1220.4	1276.9	1327.8	1514.0	2374.4	3281.1	3678.2
135.69 km ³ VRCLL's			1048.4	1059.9	1130.3	1238.0	1628.2	2667.8	3437.0	3674.3
Distribution Factors			0.972	0.973	0.962	0.955	0.900	0.552	0.245	N/A
Hedges (hm ³)	1075.8	1075.8	765.1	561.3	424.0	363.8	363.8	315.9	262.3	N/A
Grand Coulee										
ARC PDR's			849.50	849.50	849.50	1416.95	2327.30	2603.28	2831.26	3077.73
98.68 km ³ PDR's			849.50	849.50	849.50	849.50	849.50	849.50	849.50	849.50
117.18 km ³ PDR's			849.50	849.50	849.50	849.50	849.50	849.50	849.50	849.50
135.69 km ³ PDR's			849.50	849.50	849.50	849.50	849.50	849.50	849.50	849.50
98.68 km ³ VRCLL's			6094.0	6093.7	5701.6	5733.9	4612.8	5272.9	6396.1	6395.9
117.18 km ³ VRCLL's			2001.8	2177.2	1206.2	473.4	0.0	3215.8	6396.9	6396.6
135.69 km ³ VRCLL's			1596.2	239.0	0.0	0.0	11.0	2064.7	5260.9	6396.6
Distribution Factors			0.962	0.960	0.942	0.954	0.915	0.648	0.380	N/A
Hedges (hm ³)	24903.9	24903.9	18809.7	13838.5	12018.2	9922.2	9922.2	8045.4	7159.0	N/A
Chelan										
ARC PDR's			1.42	1.42	1.42	1.42	1.42	57.34	58.76	55.44
98.68 km ³ PDR's			1.42	1.42	1.42	1.42	1.42	42.48	50.97	56.63
117.18 km ³ PDR's			1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
135.69 km ³ PDR's			1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
98.68 km ³ VRCLL's			424.0	322.7	262.8	289.4	399.0	660.8	835.0	834.5
117.18 km ³ VRCLL's			115.2	43.8	45.5	8.8	26.2	347.9	797.6	835.5
135.69 km ³ VRCLL's			115.7	0.0	0.0	0.0	17.9	586.5	704.9	835.5
Distribution Factors			0.967	0.965	0.951	0.930	0.830	0.550	0.300	N/A
Hedges (hm ³)	N/A	N/A	496.7	440.4	374.3	161.5	161.5	156.6	144.3	N/A

Notes

1/ PDR's and VRCLL's from the AOP09.

2/ Distribution factors and forecast errors updated based on the 2003 POP Appendix 8.

* These values are used in calculating VECC's for the TSR only prior to the forecast season.

** Adjusted for 0% bank storage.

Exhibit 11 – U.S. Operating Rule Curve Lower Limits
End-of-Month Usable Storage Contents

English Units in ksf

Month	Libby	Dworshak	Hungry Horse *	Grand Coulee	Chelan
January	771.7	321.8	83.2	1776.1	85.9
February	436.9	310.6	0.0	1170.8	36.9
March	75.0	332.7	0.0	232.8	2.5
April 15	12.7	390.2	0.0	47.5	0.2

Metric Units in hm³

Month	Libby	Dworshak	Hungry Horse *	Grand Coulee	Chelan
January	1888.0	787.3	203.6	4345.4	210.2
February	1068.9	759.9	0.0	2864.5	90.3
March	183.5	814.0	0.0	569.6	6.1
April 15	31.1	954.7	0.0	116.2	0.5

Source: Operating Rule Curve Lower Limits from the AOP09.

Exhibit 12 - Composite Canadian Storage Contents in ksfd (English)

From the DOP09 70-Year Continuous TSR Study

<u>Water Year</u>	<u>AU1</u>	<u>AU2</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>AP1</u>	<u>AP2</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>
1928-1929	7814.6	7786.1	7319.8	6900.6	6304.2	5053.5	3145.7	1726.9	1148.9	690.0	530.8	2026.1	5484.8	6789.2
1929-1930	7196.8	7348.6	6711.1	5750.0	4395.2	3156.6	1161.5	454.6	0.1	150.9	857.1	2691.3	4123.9	6082.1
1930-1931	6551.9	6739.7	6451.9	5562.3	4342.6	2765.8	1020.5	262.1	0.0	74.4	48.7	1908.3	2909.8	3968.4
1931-1932	3970.6	3861.9	3068.1	2324.4	1519.7	569.5	149.6	0.0	0.0	269.8	708.6	2297.2	6044.2	7655.4
1932-1933	7812.0	7786.1	7002.4	6271.5	6304.2	5133.8	2708.5	1481.0	1294.4	1070.1	1016.1	1462.1	5274.4	7586.6
1933-1934	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2804.9	948.2	627.2	620.4	1057.6	3943.6	6155.8	7097.0
1934-1935	7363.7	7408.3	6757.8	6049.2	6304.2	5133.8	2718.4	1789.6	1503.2	1279.0	1188.9	1909.0	5594.2	7602.6
1935-1936	7797.1	7786.1	7306.3	6554.4	5525.5	4024.4	2125.5	1049.0	1074.0	1089.1	1791.0	3979.5	6730.8	7664.6
1936-1937	7814.6	7757.2	7082.8	6180.3	4865.8	3354.5	1264.4	419.6	95.2	69.9	48.2	1539.3	4563.1	6383.7
1937-1938	6427.2	6208.6	5424.2	4732.3	4334.9	3539.3	2558.6	1981.1	1065.3	970.8	995.3	2046.5	5822.6	7593.9
1938-1939	7658.8	7613.8	7217.1	6606.6	5831.6	4779.6	3114.5	2267.7	2008.0	1828.1	1878.9	3317.8	5200.3	7417.1
1939-1940	7690.8	7675.7	7003.1	6358.7	5579.1	4759.0	2647.3	2105.6	2259.2	2184.0	2187.9	4041.3	6048.5	7046.6
1940-1941	7228.8	7186.5	6750.7	6415.0	5638.5	4544.5	3010.3	1942.6	1798.3	2173.8	2622.4	3931.3	4577.9	5747.7
1941-1942	5902.7	5967.7	5981.8	6299.9	6288.7	5133.8	3722.5	2452.0	1293.9	1188.6	1173.6	2034.7	4654.2	7349.3
1942-1943	7739.6	7786.1	7212.4	6474.2	6047.8	5133.8	3848.7	2596.8	1418.9	1291.4	1776.0	2919.5	5316.5	7274.2
1943-1944	7739.6	7786.1	7304.9	6877.8	6181.5	5038.9	3292.8	2013.9	1109.2	763.3	721.0	1646.5	3316.1	4408.2
1944-1945	4583.8	4510.8	3869.7	3338.0	2537.6	1303.6	566.2	137.5	0.0	20.1	5.8	1692.1	4657.1	6318.0
1945-1946	6437.6	6168.3	5482.0	4850.4	4109.4	3117.2	1805.4	1201.5	739.8	637.2	663.0	1957.2	6018.8	7602.6
1946-1947	7740.0	7786.1	7341.2	6900.6	6304.2	5133.8	2625.7	1433.9	1394.0	1104.4	1164.0	2704.4	6261.2	7664.6
1947-1948	7739.6	7786.1	7341.2	6900.6	6304.2	5133.8	2666.3	1321.0	1268.5	1194.9	1133.1	2508.0	6239.1	7630.1
1948-1949	7764.3	7786.1	7341.2	6900.6	6304.2	5133.8	3836.0	2779.3	1574.0	1388.6	1360.1	3826.4	5683.5	6613.8
1949-1950	6924.4	7136.9	6695.9	5961.0	5833.6	5133.8	2624.0	1638.0	1150.1	1043.2	977.0	1188.5	4241.6	7523.8
1950-1951	7739.6	7786.1	7341.2	6900.6	6304.2	5133.8	2726.4	1832.9	1476.4	1296.1	1227.7	2546.3	5545.5	7602.6
1951-1952	7769.3	7786.1	7341.2	6900.6	6304.2	5133.8	2721.5	2190.5	1269.8	1089.1	1391.2	3434.2	6186.9	7664.6
1952-1953	7814.6	7786.1	7226.5	6455.6	5421.7	4120.3	3381.4	2230.2	1194.1	1073.7	998.4	1449.5	4816.3	7094.5
1953-1954	7462.3	7786.1	7341.2	6900.6	6304.2	5133.8	2684.4	1226.9	1126.4	1106.0	1084.4	2235.2	4555.0	7586.0
1954-1955	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2732.3	1958.0	1525.2	1322.2	1107.8	1225.8	4280.4	7591.7
1955-1956	7764.9	7786.1	7341.2	6900.6	6304.2	5133.8	2701.8	1534.4	1349.7	1140.4	1395.4	3337.1	6296.6	7602.6
1956-1957	7739.6	7786.1	7341.2	6900.6	6304.2	5133.8	2645.4	1696.2	1438.9	1233.5	1165.9	3778.2	6785.8	7664.6
1957-1958	7739.6	7692.5	7134.1	6650.3	6013.4	5133.8	2674.7	1542.4	1382.0	1195.8	1141.6	3440.5	6475.9	7602.6
1958-1959	7722.7	7758.9	7296.8	6900.6	6304.2	5133.8	2739.1	1559.3	1418.2	1221.4	1189.9	1667.7	4958.6	7602.6
1959-1960	7756.8	7786.1	7341.2	6900.6	6304.2	5133.8	2714.3	1741.3	1513.2	1390.0	1333.9	2192.0	5417.5	7447.7
1960-1961	7739.6	7774.6	7341.2	6900.6	6304.2	5133.8	2706.3	1162.0	1129.2	1122.0	1120.5	2185.2	6076.3	7706.4
1961-1962	7814.6	7786.1	7176.2	6845.7	6288.1	5133.8	2640.6	2123.5	1429.4	1242.5	1263.6	2191.2	5829.1	7447.1
1962-1963	7739.6	7786.1	7312.5	6900.6	6304.2	5133.8	2705.5	2086.4	1503.6	1325.1	1317.7	2334.4	5992.7	7664.6
1963-1964	7814.6	7786.1	7341.2	6854.2	6304.2	5133.8	2682.8	1740.1	1349.0	1154.3	1073.8	1305.6	5542.7	7535.2
1964-1965	7739.6	7786.1	7341.2	6900.6	6304.2	5133.8	2709.9	2055.4	1527.8	1334.1	1367.6	2904.9	6023.6	7664.6
1965-1966	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2700.1	1650.1	1598.8	1491.5	1475.0	3314.9	6421.6	7664.6
1966-1967	7814.6	7786.1	7331.5	6744.4	6265.9	5133.8	2745.0	926.0	578.5	563.1	312.3	2242.7	5589.1	7814.6
1967-1968	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2722.6	1619.3	1476.3	1275.0	880.0	2651.7	5998.9	7663.3
1968-1969	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2699.2	1522.9	1361.7	1204.0	1263.7	3352.3	6417.5	7602.6
1969-1970	7739.6	7736.5	7337.2	6900.6	6304.2	5133.8	3873.7	2791.5	1614.7	1404.8	1173.9	1879.8	5370.3	7263.1
1970-1971	7613.9	7592.7	7090.3	6503.7	6082.0	5133.8	2660.7	1862.5	1194.1	1085.4	1101.4	2988.9	6230.0	7640.0
1971-1972	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2664.4	809.1	482.5	473.9	607.2	2549.8	5779.0	7807.5
1972-1973	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	3973.4	3349.0	3090.0	2756.5	2711.5	4564.3	5833.9	7057.5
1973-1974	7447.6	7306.8	6688.4	6044.8	6304.2	5133.8	2730.0	1632.0	1194.1	1089.1	1073.8	1382.4	5815.7	7635.2
1974-1975	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	3614.2	2896.1	1761.5	1563.1	1492.4	1761.9	3785.0	6992.0
1975-1976	7313.8	7616.3	7341.2	6900.6	6304.2	5133.8	2768.6	1573.3	1550.6	1317.4	1281.0	2982.7	5977.0	7422.4
1976-1977	7671.4	7764.5	7341.2	6900.6	6245.8	4949.6	3173.7	1967.1	1110.5	627.8	621.5	1557.4	2815.0	3462.1
1977-1978	3479.2	3431.3	2717.1	2115.6	1458.2	1457.5	974.9	884.2	698.0	617.7	627.0	1591.9	4930.9	6935.5
1978-1979	7376.2	7537.0	7341.2	6900.6	6304.2	5133.8	3433.8	2924.6	2449.3	2265.2	2210.8	3480.0	6030.5	7472.2
1979-1980	7491.4	7535.6	6947.6	6130.7	5020.9	4152.7	2877.3	2197.3	1194.1	1089.1	1365.9	3558.9	6413.2	7534.5
1980-1981	7620.9	7578.6	7275.0	6784.3	6304.2	5133.8	2779.6	1741.3	1457.6	1259.9	1255.9	2687.2	5638.3	7583.7
1981-1982	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2700.1	1741.3	1481.6	1264.9	1165.4	1657.8	5171.0	7598.8
1982-1983	7807.1	7786.1	7341.2	6900.6	6304.2	5133.8	2699.6	1919.1	1586.1	1410.5	1393.4	2219.8	5438.1	7453.7
1983-1984	7739.6	7786.1	7341.2	6900.6	6304.2	5133.8	3477.4	3107.1	2432.3	2241.4	2195.8	2364.6	4425.0	7012.6
1984-1985	7573.8	7786.1	7341.2	6900.6	6304.2	5133.8	3569.4	2747.6	1573.8	1396.0	1332.5	3203.8	5974.8	7091.0
1985-1986	7230.9	7197.3	6878.4	6620.4	6135.1	5123.8	2646.7	1742.5	1194.1	1089.1	1066.3	2182.6	6327.5	7664.6
1986-1987	7781.6	7720.9	7300.9	6900.6	6304.2	5133.8	2765.8	2195.7	2275.4	2431.6	2836.5	4810.5	6052.0	6780.7
1987-1988	6979.8	6906.1	6416.1	5304.7	4045.7	2785.2	1061.2	225.0	0.0	76.4	852.9	3140.1	5445.3	6163.7
1988-1989	6036.1	5792.5	4892.7	4336.7	3824.5	2703.7	1423.9	309.6	437.3	578.5	1016.5	2173.5	5502.4	6851.7
1989-1990	7232.3	7498.9	7043.9	6391.5	6304.2	5133.8	2739.3	1582.0	1194.1	1089.1	1145.5	1795.9	5511.2	7602.6
1990-1991	7814.6	7786.1	7212.4	6691.3	6304.2	5133.8	2784.5	1253.6	1295.8	1284.9	1408.7	2690.4	5613.5	7651.9
1991-1992	7803.7	7786.1	7291.2	6420.3	5744.2	4714.4	2851.6	2373.0	2489.9	2582.2	3085.5	4789.7	5637.4	6404.5
1992-1993	6594.4	6491.6	5879.6	5137.7	4189.4	2813.6	1215.3	283.1	415.7	580.3	871.2	3238.9	5176.5	6247.6
1993-1994	6586.0	6841.9	6587.3	5782.2	4507.9	3267.9	1677.1	407.6	395.0	552.3	1291.6	3915.6	5044.5	6454.2
1994-1995	6697.7	6609.0	5920.1	4909.4	3818.7	2709.4	2211.6	1979.0	1070.2	995.8	962.8	1737.2	5282.4	7235.2
1995-1996	7634.4	7723.3	7125.7	6900.6	6304.2	5142.4	2837.0	1468.4	1435.4	1453.4	1493.9	2020.5	5514.5	7602.6
1996-1997	7796.0	7786.1	7341.2	6900.6	6304.2	5133.8	2709.1	1443.1	1422.2	1412.9	1374.0	2766.3	6139.0	7577.0
1997-1998	7814.6	7786.1	7341.2	6900.6	6304.2	5133.8	2818.1	2391.2	1588.7	1418.1	1449.1	3521.8	6079.1	7589.1
Max	7814.6	7786.1	7341.2											

Exhibit 12M - Composite Canadian Storage Contents in hm³ (SI)

From the DOP09 70-Year Continuous TSR Study

Water Year	AU1	AU2	SEP	OCT	NOV	DEC	JAN	FEB	MAR	AP1	AP2	MAY	JUN	JUL
1928-1929	19119.2	19049.5	17908.6	16883.0	15423.9	12363.9	7696.3	4225.0	2810.9	1688.2	1298.7	4957.1	13419.1	16610.
1929-1930	17607.7	17979.1	16419.4	14068.0	10753.3	7722.9	2841.7	1112.2	0.2	369.2	2097.0	6584.5	10089.5	14880.
1930-1931	16029.9	16489.4	15785.2	13608.7	10624.6	6766.8	2496.8	641.3	0.0	182.0	119.1	4668.8	7119.1	9709.1
1931-1932	9714.5	9448.5	7506.4	5686.9	3718.1	1393.3	366.0	0.0	0.0	660.1	1733.7	5620.3	14787.7	18729.
1932-1933	19112.8	19049.5	17132.1	15343.9	15423.9	12560.4	6626.6	3623.4	3166.9	2618.1	2486.0	3577.2	12904.3	18561.
1933-1934	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6862.5	2319.9	1534.5	1517.9	2587.5	9648.4	15060.8	17363.
1934-1935	18016.0	18125.1	16533.6	14800.0	15423.9	12560.4	6650.8	4378.4	3677.7	3129.2	2908.8	4670.6	13686.8	18600.
1935-1936	19076.4	19049.5	17875.6	16036.0	13518.7	9846.1	5200.2	2566.5	2627.6	2664.6	4381.9	9736.2	16467.6	18752.
1936-1937	19119.2	18978.8	17328.8	15120.7	11904.7	8207.1	3093.5	1026.6	232.9	171.0	117.9	3766.1	11164.1	15618.
1937-1938	15724.8	15190.0	13270.8	11578.0	10605.8	8659.3	6259.9	4847.0	2606.4	2375.2	2435.1	5007.0	14245.6	18579.
1938-1939	18738.0	18627.9	17657.4	16163.7	14267.6	11693.8	7619.9	5548.2	4912.8	4472.6	4596.9	8117.3	12723.1	18146.
1939-1940	18816.3	18779.4	17133.8	15557.2	13649.8	11643.4	6476.9	5151.6	5527.4	5343.4	5352.9	9887.4	14798.3	17240.
1940-1941	17686.0	17582.5	16516.3	15694.9	13795.2	11118.6	7365.0	4752.8	4399.7	5318.4	6416.0	9618.3	11200.3	14062.
1941-1942	14441.5	14600.6	14635.1	15413.3	15385.9	12560.4	9107.5	5999.1	3165.7	2908.0	2871.3	4978.1	11387.0	17980.
1942-1943	18935.7	19049.5	17645.9	15839.8	14796.5	12560.4	9416.2	6353.3	3471.5	3159.5	4345.2	7142.8	13007.3	17797.
1943-1944	18935.7	19049.5	17872.2	16827.2	15123.7	12328.2	8056.2	4927.2	2713.8	1867.5	1764.0	4028.3	8113.2	10785.
1944-1945	11214.7	11036.1	9467.6	8166.8	6208.5	3189.4	1385.3	336.4	0.0	49.2	14.2	4139.9	11394.1	15457.
1945-1946	15750.2	15091.4	13412.3	11867.0	10054.1	7626.5	4417.1	2939.6	1810.0	1559.0	1622.1	4788.5	14725.6	18600.
1946-1947	18936.7	19049.5	17961.0	16883.0	15423.9	12560.4	6424.0	3508.2	3410.6	2702.0	2847.8	6616.6	15318.7	18752.
1947-1948	18935.7	19049.5	17961.0	16883.0	15423.9	12560.4	6523.4	3232.0	3103.5	2923.4	2772.2	6136.1	15264.6	18667.
1948-1949	18996.1	19049.5	17961.0	16883.0	15423.9	12560.4	9385.2	6799.8	3850.9	3397.3	3327.6	9361.7	13905.3	16181.
1949-1950	16941.2	17461.1	16382.2	14584.2	14272.5	12560.4	6419.9	4007.5	2813.8	2552.3	2390.3	2907.8	10377.5	18407.
1950-1951	18935.7	19049.5	17961.0	16883.0	15423.9	12560.4	6670.4	4484.4	3612.2	3171.0	3003.7	6229.8	13567.6	18600.
1951-1952	19008.4	19049.5	17961.0	16883.0	15423.9	12560.4	6658.4	5359.3	3106.7	2664.6	3403.7	8402.1	15136.9	18752.
1952-1953	19119.2	19049.5	17680.4	15794.3	13264.7	10080.7	8272.9	5456.4	2921.5	2626.9	2442.7	3546.3	11783.6	17357.
1953-1954	18257.3	19049.5	17961.0	16883.0	15423.9	12560.4	6567.7	3001.7	2755.9	2705.9	2653.1	5468.6	11144.3	18559.
1954-1955	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6684.8	4790.4	3731.6	3234.9	2710.3	2999.0	10472.4	18573.
1955-1956	18997.6	19049.5	17961.0	16883.0	15423.9	12560.4	6610.2	3754.1	3302.2	2790.1	3414.0	8164.5	15405.3	18600.
1956-1957	18935.7	19049.5	17961.0	16883.0	15423.9	12560.4	6472.2	4149.9	3520.4	3017.9	2852.5	9243.7	16602.1	18752.
1957-1958	18935.7	18820.5	17454.3	16270.6	14712.4	12560.4	6543.9	3773.6	3381.2	2925.6	2793.0	8417.5	15843.9	18600.
1958-1959	18894.4	18982.9	17852.4	16883.0	15423.9	12560.4	6701.5	3815.0	3469.8	2988.3	2911.2	4080.2	12131.7	18600.
1959-1960	18977.8	19049.5	17961.0	16883.0	15423.9	12560.4	6640.8	4260.3	3702.2	3400.8	3263.5	5362.9	13254.5	18221.
1960-1961	18935.7	19021.3	17961.0	16883.0	15423.9	12560.4	6621.2	2842.9	2762.7	2745.1	2741.4	5346.3	14866.3	18854.
1961-1962	19119.2	19049.5	17557.3	16748.7	15384.5	12560.4	6460.5	5195.4	3497.2	3039.9	3091.5	5361.0	14261.5	18220.
1962-1963	18935.7	19049.5	17890.8	16883.0	15423.9	12560.4	6619.3	5104.6	3678.7	3242.0	3223.9	5711.3	14661.7	18752.
1963-1964	19119.2	19049.5	17961.0	16769.5	15423.9	12560.4	6563.7	4257.3	3300.5	2824.1	2627.2	3194.3	13560.8	18435.
1964-1965	18935.7	19049.5	17961.0	16883.0	15423.9	12560.4	6630.0	5028.7	3737.9	3264.0	3346.0	7107.1	14737.3	18752.
1965-1966	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6606.1	4037.1	3911.6	3649.1	3608.7	8110.2	15711.1	18752.
1966-1967	19119.2	19049.5	17937.2	16500.8	15330.2	12560.4	6715.9	2265.6	1415.4	1377.7	764.1	5487.0	13674.3	19119.
1967-1968	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6661.1	3961.8	3611.9	3119.4	2153.0	6487.6	14676.9	18749.
1968-1969	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6603.9	3725.9	3331.5	2945.7	3091.8	8201.7	15701.1	18600.
1969-1970	18935.7	18928.1	17951.2	16883.0	15423.9	12560.4	9477.4	6829.7	3950.5	3437.0	2872.1	4599.1	13139.0	17769.
1970-1971	18628.2	18576.3	17347.1	15912.0	14880.2	12560.4	6509.7	4556.8	2921.5	2655.5	2694.7	7312.6	15242.3	18692.
1971-1972	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6518.7	1979.5	1180.5	1159.4	1485.6	6238.3	14138.9	19101.
1972-1973	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	9721.3	8193.7	7560.0	6744.1	6634.0	11167.0	14273.2	17266.
1973-1974	18221.3	17876.8	16363.8	14789.2	15423.9	12560.4	6679.2	3992.9	2921.5	2664.6	2627.2	3382.2	14228.7	18680.
1974-1975	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	8842.5	7085.6	4309.7	3824.3	3651.3	4310.7	9260.4	17106.
1975-1976	17893.9	18634.0	17961.0	16883.0	15423.9	12560.4	6773.7	3849.2	3793.7	3223.2	3134.1	7297.5	14623.3	18159.
1976-1977	18768.8	18996.6	17961.0	16883.0	15281.0	12109.7	7764.8	4812.7	2716.9	1536.0	1520.6	3810.3	6887.2	8470.4
1977-1978	8512.2	8395.0	6647.7	5176.0	3567.6	3565.9	2385.2	2163.3	1707.7	1511.3	1534.0	3894.7	12063.9	16968.
1978-1979	18046.6	18440.0	17961.0	16883.0	15423.9	12560.4	8401.1	7155.3	5992.5	5542.0	5408.9	8514.2	14754.2	18281.
1979-1980	18328.5	18436.6	16998.0	14999.4	12284.1	10160.0	7039.6	5375.9	2921.5	2664.6	3341.8	8707.2	15690.5	18433.
1980-1981	18645.3	18541.8	17799.0	16598.5	15423.9	12560.4	6800.6	4260.3	3566.2	3082.5	3072.7	6574.5	13794.7	18554.
1981-1982	19119.2	19049.5	17961.0	16883.0	15423.9	12560.4	6606.1	4260.3	3624.9	3094.7	2851.3	4056.0	12651.4	18591.
1982-1983	19100.9	19049.5	17961.0	16883.0	15423.9	12560.4	6604.8	4695.3	3880.6	3450.9	3409.1	5431.0	13304.9	18236.
1983-1984	18935.7	19049.5	17961.0	16883.0	15423.9	12560.4	8507.8	7601.8	5950.9	5483.8	5372.2	5785.2	10826.2	17157.
1984-1985	18530.1	19049.5	17961.0	16883.0	15423.9	12560.4	8732.9	6722.3	3850.5	3415.5	3260.1	7838.4	14617.9	17348.
1985-1986	17691.1	17608.9	16828.7	16197.5	15010.1	12535.9	6475.4	4263.2	2921.5	2664.6	2608.8	5339.9	15480.9	18752.
1986-1987	19038.5	18890.0	17862.4	16883.0	15423.9	12560.4	6766.8	5372.0	5567.0	5949.2	6939.8	11769.4	14806.8	16589.
1987-1988	17076.8	16896.5	15697.6	12978.5	9898.2	6814.3	2596.3	550.5	0.0	186.9	2086.7	7682.6	13322.5	15080.
1988-1989	14767.9	14171.9	11970.5	10610.2	9357.0	6614.9	3483.7	757.5	1069.9	1415.4	2487.0	5317.7	13462.2	16763.
1989-1990	17694.5	18346.8	17233.6	15637.4	15423.9	12560.4	6702.0	3870.5	2921.5	2664.6	2802.6	4393.8	13483.7	18600.
1990-1991	19119.2	19049.5	17645.9	16370.9	15423.9	12560.4	6812.6	3067.1	3170.3	3143.6	3446.5	6582.3	13734.0	18721.
1991-1992	19092.5	19049.5	17838.6	15707.9	14053.8	11534.3	6976.7	5805.8	6091.8	6317.6	7549.0	11718.5	13792.5	15669.
1992-1993	16133.9	15882.3	14385.0	12569.9	10249.8	6883.8	2973.4	692.6	1017.1	1419.8	2131.5	7924.3	12664.8	15285.
1993-1994	16113.3	16739.4	16116.5	14146.7	11029.0	7995.2	4103.2	997.2	966.4	1351.3	3160.0	9579.9	12341.9	15790.
1994-1995	16386.6	16169.6	14484.1	12011.3	9342.8	6628.8	5410.9	4841.8	2618.4	2436.3	2355.6	4250.2	12923.9	17701.
1995-1996	18678.3	18895.8	17433.7	16883.0	15423.9	12581.4	6941.0	3592.6	3511.8	3555.9	3655.0	4943.4	13491.8	18600.
1996-19														

Exhibit 13 – Duncan Reservoir Capacity Table, dated 21 Feb. 1973

English Units - ksfd

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
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

Exhibit 13M – Duncan Reservoir Capacity Table (English) Continued**ksfd**

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
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
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
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

Exhibit 13M – Duncan Reservoir Capacity Table (English) Continued**ksfd**

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
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

Exhibit 13M – Duncan Reservoir Capacity Table, dated 21 Feb. 1973SI Units - hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
576.68	1726.8										
576.38	1705.0	1707.2	1709.4	1711.6	1713.8	1715.8	1718.0	1720.2	1722.4	1724.6	2.18
576.07	1683.3	1685.5	1687.7	1689.9	1692.1	1694.0	1696.2	1698.4	1700.6	1702.8	2.18
575.77	1661.7	1663.9	1666.1	1668.1	1670.3	1672.5	1674.7	1676.9	1678.9	1681.1	2.15
575.46	1640.2	1642.4	1644.6	1646.6	1648.8	1651.0	1653.2	1655.4	1657.3	1659.5	2.15
575.16	1618.4	1620.6	1622.8	1625.0	1627.2	1629.2	1631.4	1633.6	1635.8	1638.0	2.18
574.85	1597.1	1599.3	1601.3	1603.5	1605.7	1607.7	1609.9	1612.1	1614.3	1616.2	2.13
574.55	1575.6	1577.8	1580.0	1582.0	1584.2	1586.4	1588.6	1590.8	1592.7	1594.9	2.15
574.24	1554.3	1556.5	1558.5	1560.7	1562.9	1564.8	1567.0	1569.2	1571.5	1573.4	2.13
573.94	1533.0	1535.2	1537.2	1539.4	1541.6	1543.6	1545.8	1548.0	1550.2	1552.1	2.13
573.63	1511.8	1514.0	1515.9	1518.1	1520.3	1522.3	1524.5	1526.7	1528.9	1530.8	2.13
573.33	1490.5	1492.7	1494.6	1496.8	1499.0	1501.0	1503.2	1505.4	1507.6	1509.6	2.13
573.03	1469.4	1471.6	1473.6	1475.8	1477.7	1479.9	1482.2	1484.1	1486.3	1488.3	2.10
572.72	1448.4	1450.6	1452.5	1454.7	1456.7	1458.9	1461.1	1463.1	1465.3	1467.2	2.10
572.42	1427.3	1429.5	1431.5	1433.7	1435.7	1437.9	1440.1	1442.0	1444.2	1446.2	2.10
572.11	1406.3	1408.5	1410.5	1412.7	1414.6	1416.8	1419.0	1421.0	1423.2	1425.1	2.10
571.81	1385.5	1387.5	1389.7	1391.6	1393.8	1395.8	1398.0	1399.9	1402.1	1404.1	2.08
571.50	1364.7	1366.7	1368.9	1370.8	1373.0	1375.0	1377.2	1379.1	1381.4	1383.3	2.08
571.20	1343.9	1345.9	1348.1	1350.0	1352.2	1354.2	1356.4	1358.4	1360.6	1362.5	2.08
570.89	1323.4	1325.3	1327.5	1329.5	1331.7	1333.6	1335.6	1337.8	1339.8	1342.0	2.06
570.59	1302.6	1304.5	1306.7	1308.7	1310.9	1312.8	1315.0	1317.0	1319.2	1321.2	2.08
570.28	1282.0	1284.0	1286.2	1288.1	1290.3	1292.3	1294.3	1296.5	1298.4	1300.6	2.06
569.98	1261.7	1263.7	1265.9	1267.8	1269.8	1271.7	1273.9	1275.9	1277.9	1280.1	2.03
569.67	1241.2	1243.1	1245.3	1247.3	1249.5	1251.4	1253.4	1255.6	1257.6	1259.8	2.06
569.37	1220.9	1222.8	1225.0	1227.0	1228.9	1230.9	1233.1	1235.0	1237.0	1239.2	2.03
569.06	1200.5	1202.5	1204.7	1206.7	1208.6	1210.6	1212.8	1214.7	1216.7	1218.9	2.03
568.76	1180.2	1182.2	1184.4	1186.4	1188.3	1190.3	1192.5	1194.4	1196.4	1198.6	2.03
568.45	1160.2	1162.1	1164.1	1166.3	1168.3	1170.2	1172.2	1174.1	1176.3	1178.3	2.01
568.15	1140.1	1142.1	1144.0	1146.2	1148.2	1150.1	1152.1	1154.1	1156.3	1158.2	2.01
567.84	1120.1	1122.0	1124.0	1126.2	1128.1	1130.1	1132.0	1134.0	1136.2	1138.2	2.01
567.54	1100.2	1102.2	1104.2	1106.1	1108.1	1110.0	1112.2	1114.2	1116.1	1118.1	1.98
567.23	1080.4	1082.4	1084.3	1086.3	1088.2	1090.2	1092.4	1094.4	1096.3	1098.3	1.98
566.93	1060.6	1062.6	1064.5	1066.5	1068.4	1070.4	1072.6	1074.5	1076.5	1078.5	1.98
566.62	1040.8	1042.7	1044.7	1046.7	1048.6	1050.6	1052.8	1054.7	1056.7	1058.6	1.98
566.32	1021.2	1023.2	1025.1	1027.1	1029.0	1031.0	1033.0	1034.9	1036.9	1038.8	1.96
566.01	1001.6	1003.6	1005.6	1007.5	1009.5	1011.4	1013.4	1015.3	1017.3	1019.3	1.96
565.71	982.1	984.0	986.0	987.9	989.9	991.9	993.8	995.8	997.7	999.7	1.96
565.41	962.7	964.7	966.7	968.6	970.6	972.3	974.2	976.2	978.2	980.1	1.93
565.10	943.4	945.4	947.3	949.3	951.2	953.0	954.9	956.9	958.8	960.8	1.93
564.80	924.1	926.0	928.0	930.0	931.9	933.6	935.6	937.5	939.5	941.5	1.93
564.49	905.0	907.0	908.9	910.6	912.6	914.5	916.5	918.5	920.2	922.1	1.91
564.19	885.9	887.9	889.8	891.5	893.5	895.5	897.4	899.4	901.1	903.0	1.91
563.88	866.8	868.8	870.7	872.5	874.4	876.4	878.3	880.3	882.0	884.0	1.91

Exhibit 13M – Duncan Reservoir Capacity Table (SI) Continued

hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
563.58	848.0	849.9	851.7	853.6	855.6	857.3	859.2	861.2	863.2	864.9	1.88
563.27	829.2	831.1	832.8	834.8	836.7	838.4	840.4	842.4	844.3	846.0	1.88
562.97	810.3	812.3	814.0	815.9	817.9	819.6	821.6	823.5	825.5	827.2	1.88
562.66	791.7	793.7	795.4	797.3	799.1	801.0	803.0	804.7	806.6	808.4	1.86
562.36	773.1	775.1	776.8	778.8	780.5	782.4	784.4	786.1	788.0	789.8	1.86
562.05	754.8	756.5	758.4	760.2	762.1	763.8	765.8	767.5	769.5	771.2	1.83
561.75	736.2	738.1	739.9	741.8	743.5	745.5	747.4	749.1	751.1	752.8	1.86
561.44	718.1	719.8	721.7	723.5	725.4	727.1	728.8	730.8	732.5	734.5	1.81
561.14	699.7	701.4	703.4	705.1	707.1	708.8	710.7	712.4	714.4	716.1	1.83
560.83	681.6	683.3	685.3	687.0	689.0	690.7	692.4	694.3	696.1	698.0	1.81
560.53	663.5	665.2	667.2	668.9	670.9	672.6	674.3	676.2	678.0	679.9	1.81
560.22	645.7	647.4	649.3	651.0	652.8	654.5	656.4	658.1	659.8	661.8	1.79
559.92	627.8	629.5	631.5	633.2	634.9	636.6	638.6	640.3	642.0	643.9	1.79
559.61	610.2	611.9	613.6	615.6	617.3	619.0	620.7	622.4	624.4	626.1	1.76
559.31	592.6	594.3	596.0	597.9	599.7	601.4	603.1	604.8	606.8	608.5	1.76
559.00	575.0	576.7	578.4	580.3	582.0	583.8	585.5	587.2	589.1	590.9	1.76
558.70	557.6	559.3	561.0	562.7	564.4	566.1	568.1	569.8	571.5	573.2	1.74
558.39	540.2	541.9	543.6	545.3	547.1	548.8	550.7	552.4	554.2	555.9	1.74
558.09	523.1	524.8	526.5	528.2	529.9	531.6	533.4	535.1	536.8	538.5	1.71
557.79	506.0	507.7	509.4	511.1	512.8	514.5	516.2	517.9	519.7	521.4	1.71
557.48	489.1	490.8	492.5	494.2	495.9	497.4	499.1	500.8	502.5	504.2	1.69
557.18	472.2	473.9	475.6	477.3	479.0	480.5	482.2	483.9	485.7	487.4	1.69
556.87	455.3	457.0	458.7	460.5	462.2	463.6	465.3	467.1	468.8	470.5	1.69
556.57	438.7	440.4	442.1	443.6	445.3	447.0	448.7	450.4	451.9	453.6	1.66
556.26	422.3	424.0	425.5	427.2	428.9	430.4	432.1	433.8	435.5	437.0	1.64
555.96	405.9	407.6	409.1	410.8	412.5	414.0	415.7	417.4	419.1	420.6	1.64
555.65	389.5	391.2	392.7	394.4	396.1	397.6	399.3	401.0	402.7	404.2	1.64
555.35	373.4	375.1	376.5	378.2	379.7	381.4	383.1	384.6	386.3	387.8	1.61
555.04	357.4	358.9	360.6	362.1	363.8	365.3	367.0	368.5	370.2	371.6	1.59
554.74	341.5	343.0	344.7	346.2	347.9	349.4	351.1	352.6	354.3	355.7	1.59
554.43	325.9	327.4	329.1	330.5	332.2	333.7	335.2	336.9	338.4	340.1	1.57
554.13	310.2	311.7	313.4	314.9	316.6	318.1	319.5	321.2	322.7	324.4	1.57
553.82	294.8	296.3	298.0	299.5	300.9	302.4	304.1	305.6	307.0	308.8	1.54
553.52	279.6	281.1	282.6	284.3	285.8	287.2	288.7	290.2	291.9	293.3	1.52
553.21	264.5	265.9	267.4	269.1	270.6	272.1	273.5	275.0	276.7	278.2	1.52
552.91	249.6	251.0	252.5	254.0	255.4	256.9	258.6	260.1	261.5	263.0	1.49
552.60	234.9	236.3	237.8	239.3	240.7	242.2	243.7	245.1	246.6	248.1	1.47
552.30	220.2	221.7	223.1	224.6	226.1	227.5	229.0	230.5	231.9	233.4	1.47
551.99	205.8	207.2	208.7	210.2	211.6	212.9	214.3	215.8	217.3	218.7	1.44
551.69	191.6	193.0	194.5	195.7	197.2	198.7	200.1	201.6	202.8	204.3	1.42

Exhibit 13M – Duncan Reservoir Capacity Table (SI) Continued

hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
551.38	177.4	178.8	180.3	181.5	183.0	184.5	185.9	187.4	188.6	190.1	1.42
551.08	163.7	165.1	166.4	167.8	169.1	170.5	172.0	173.2	174.7	175.9	1.37
550.77	150.0	151.4	152.7	154.1	155.4	156.8	158.3	159.5	161.0	162.2	1.37
550.47	136.5	137.7	139.2	140.4	141.9	143.1	144.6	145.8	147.3	148.5	1.35
550.17	123.3	124.5	126.0	127.2	128.7	129.9	131.1	132.6	133.8	135.3	1.32
	110.3	111.6	113.0	114.3	115.5	116.7	118.2	119.4	120.6	122.1	1.30
549.56	97.6	98.8	100.1	101.5	102.8	104.0	105.2	106.4	107.9	109.1	1.27
549.25	85.1	86.4	87.6	88.8	90.0	91.3	92.7	93.9	95.2	96.4	1.25
548.95	72.9	74.1	75.4	76.6	77.8	79.0	80.2	81.5	82.7	83.9	1.22
548.64	61.2	62.4	63.6	64.6	65.8	67.0	68.3	69.5	70.5	71.7	1.17
548.34	49.7	50.9	51.9	53.1	54.3	55.3	56.5	57.7	59.0	59.9	1.15
548.03	38.4	39.6	40.6	41.8	42.8	44.0	45.3	46.2	47.5	48.4	1.13
547.73	27.6	28.6	29.8	30.8	32.1	33.0	34.0	35.2	36.2	37.4	1.08
547.42	17.4	18.3	19.3	20.6	21.5	22.5	23.5	24.5	25.7	26.7	1.03
547.42	17.4	18.3	19.3	20.6	21.5	22.5	23.5	24.5	25.7	26.7	1.03
546.81			0.0	1.0	2.0	2.7	3.7	4.6	5.6	6.4	0.91

Exhibit 14 – Arrow Reservoir Capacity Table, dated 28 Feb. 1974

English Units - ksf

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
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

Exhibit 14 – Arrow Reservoir Capacity Table (English) Continued

ksfd

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
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
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

Exhibit 14M – Arrow Reservoir Capacity Table, dated 28 Feb. 1974SI Units - hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
440.13	8757.8										
439.83	8597.6	8613.5	8629.6	8645.6	8661.7	8677.6	8693.7	8709.7	8725.8	8741.7	16.03
439.52	8438.1	8454.0	8469.9	8486.0	8501.9	8517.8	8533.7	8549.6	8565.8	8581.7	15.95
439.22	8279.3	8295.2	8311.1	8327.0	8342.9	8358.6	8374.5	8390.4	8406.3	8422.2	15.88
438.91	8121.5	8137.1	8153.0	8168.7	8184.6	8200.3	8216.2	8231.8	8247.7	8263.4	15.78
438.61	7964.2	7979.8	7995.7	8011.4	8027.0	8042.7	8058.6	8074.3	8089.9	8105.8	15.73
438.30	7808.1	7823.7	7839.4	7854.8	7870.5	7886.1	7901.8	7917.4	7932.9	7948.5	15.61
438.00	7652.5	7668.1	7683.5	7699.2	7714.6	7730.3	7745.9	7761.3	7777.0	7792.4	15.56
437.69	7497.9	7513.3	7528.7	7544.3	7559.7	7575.2	7590.6	7606.0	7621.6	7637.1	15.46
437.39	7344.0	7359.4	7374.8	7390.2	7405.6	7420.8	7436.2	7451.6	7467.0	7482.4	15.39
437.08	7191.0	7206.2	7221.6	7236.8	7252.2	7267.4	7282.8	7298.0	7313.4	7328.5	15.29
436.78	7038.9	7054.0	7069.2	7084.6	7099.8	7115.0	7130.1	7145.3	7160.7	7175.9	15.22
436.47	6887.4	6902.6	6917.8	6932.9	6948.1	6963.0	6978.2	6993.4	7008.5	7023.7	15.14
436.17	6736.7	6751.9	6766.8	6782.0	6796.9	6812.1	6827.2	6842.2	6857.3	6872.3	15.07
435.86	6587.0	6601.9	6616.8	6632.0	6646.9	6661.8	6676.8	6691.7	6706.9	6721.8	14.97
435.56	6438.2	6453.2	6468.1	6482.8	6497.7	6512.6	6527.5	6542.5	6557.1	6572.1	14.88
435.26	6290.0	6304.9	6319.6	6334.5	6349.2	6364.1	6379.0	6393.7	6408.6	6423.3	14.83
434.95	6142.7	6157.4	6172.0	6187.0	6201.6	6216.3	6231.0	6245.7	6260.6	6275.3	14.73
434.65	5996.1	6010.8	6025.5	6040.2	6054.8	6069.3	6084.0	6098.6	6113.3	6128.0	14.66
434.34	5850.3	5865.0	5879.4	5894.1	5908.5	5923.2	5937.9	5952.3	5967.0	5981.4	14.58
434.04	5705.2	5719.7	5734.3	5748.8	5763.2	5777.6	5792.3	5806.8	5821.2	5835.9	14.51
433.73	5560.6	5575.1	5589.5	5603.9	5618.4	5632.8	5647.5	5661.9	5676.4	5690.8	14.46
433.43	5417.0	5431.5	5445.6	5460.1	5474.5	5488.7	5503.1	5517.6	5532.0	5546.2	14.36
433.12	5274.1	5288.3	5302.8	5317.0	5331.4	5345.6	5359.8	5374.2	5388.4	5402.8	14.29
432.82	5132.2	5146.4	5160.6	5174.8	5189.0	5203.2	5217.4	5231.6	5245.8	5259.9	14.19
432.51	4991.3	5005.5	5019.4	5033.6	5047.6	5061.8	5076.0	5089.9	5104.1	5118.0	14.09
432.21	4851.4	4865.3	4879.3	4893.4	4907.4	4921.3	4935.3	4949.2	4963.4	4977.4	13.99
431.90	4712.4	4726.3	4740.3	4754.0	4767.9	4781.9	4795.8	4809.8	4823.5	4837.4	13.90
431.60	4574.2	4587.9	4601.8	4615.5	4629.5	4643.2	4657.1	4670.8	4684.7	4698.5	13.82
431.29	4436.9	4450.6	4464.3	4478.0	4491.7	4505.4	4519.4	4533.1	4546.8	4560.5	13.73
430.99	4300.6	4314.3	4327.8	4341.5	4355.2	4368.6	4382.3	4396.1	4409.8	4423.2	13.63
430.68	4165.1	4178.5	4192.2	4205.7	4219.4	4232.9	4246.3	4260.0	4273.5	4287.2	13.55
430.38	4030.5	4044.0	4057.4	4070.9	4084.4	4097.8	4111.3	4124.7	4138.2	4151.6	13.46
430.07	3896.7	3910.2	3923.4	3936.8	3950.3	3963.5	3976.9	3990.4	4003.9	4017.1	13.38
429.77	3763.8	3777.1	3790.5	3803.7	3816.9	3830.2	3843.6	3856.8	3870.0	3883.5	13.29
429.46	3632.0	3645.2	3658.4	3671.6	3684.8	3697.8	3711.0	3724.2	3737.4	3750.6	13.19
429.16	3500.8	3514.1	3527.0	3540.2	3553.2	3566.4	3579.6	3592.6	3605.8	3618.8	13.11
428.85	3370.7	3383.6	3396.6	3409.8	3422.8	3435.8	3448.7	3461.7	3474.9	3487.9	13.02
428.55	3241.0	3254.0	3266.9	3279.9	3292.9	3305.8	3318.8	3331.8	3344.7	3357.7	12.97
428.24	3112.3	3125.3	3138.0	3151.0	3163.7	3176.7	3189.6	3202.4	3215.3	3228.0	12.87

Exhibit 14M – Arrow Reservoir Capacity Table (SI) Continued

hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
427.94	2983.6	2996.6	3009.3	3022.3	3035.0	3048.0	3060.9	3073.7	3086.6	3099.4	12.87
427.64	2855.9	2868.6	2881.4	2894.3	2907.1	2919.8	2932.5	2945.2	2958.2	2970.9	12.77
427.33	2728.9	2741.7	2754.4	2767.1	2779.8	2792.3	2805.0	2817.7	2830.5	2843.2	12.70
427.03	2602.9	2615.4	2628.1	2640.6	2653.3	2665.8	2678.5	2691.0	2703.7	2716.2	12.60
426.72	2477.9	2490.4	2502.9	2515.3	2527.8	2540.3	2553.0	2565.5	2578.0	2590.5	12.50
426.42	2354.9	2367.1	2379.6	2391.8	2404.0	2416.3	2428.7	2441.0	2453.2	2465.7	12.31
426.11	2233.0	2245.2	2257.5	2269.5	2281.7	2293.9	2306.2	2318.4	2330.4	2342.6	12.18
425.81	2111.9	2123.9	2136.1	2148.1	2160.3	2172.3	2184.6	2196.6	2208.8	2220.8	12.11
425.50	1991.8	2003.8	2015.8	2027.7	2039.7	2051.7	2064.0	2075.9	2087.9	2099.9	12.01
425.20	1872.1	1884.1	1896.1	1908.1	1920.1	1931.8	1943.8	1955.8	1967.8	1979.8	11.96
424.89	1752.3	1764.2	1776.2	1788.2	1800.2	1812.2	1824.2	1836.2	1848.2	1860.1	11.99
424.59	1633.1	1645.1	1656.8	1668.8	1680.8	1692.6	1704.5	1716.5	1728.5	1740.3	11.91
424.28	1515.2	1526.9	1538.7	1550.7	1562.4	1574.1	1585.9	1597.6	1609.6	1621.4	11.79
423.98	1398.2	1410.0	1421.7	1433.2	1445.0	1456.7	1468.4	1480.2	1491.7	1503.4	11.69
423.67	1282.5	1294.0	1305.8	1317.2	1328.7	1340.2	1352.0	1363.5	1375.0	1386.7	11.57
423.37	1169.2	1180.5	1192.0	1203.2	1214.5	1225.7	1237.2	1248.5	1259.8	1271.3	11.33
423.06	1057.7	1068.9	1079.9	1091.2	1102.2	1113.4	1124.7	1135.7	1147.0	1158.0	11.16
422.76	947.3	958.3	969.3	980.4	991.4	1002.4	1013.6	1024.6	1035.6	1046.7	11.03
422.45	838.2	849.2	860.0	871.0	881.8	892.8	903.8	914.5	925.5	936.3	10.91
422.15	730.3	741.1	751.8	762.6	773.4	784.1	795.1	805.9	816.7	827.4	10.79
421.84	622.9	633.7	644.4	655.2	666.0	676.5	687.2	698.0	708.8	719.5	10.74
421.54	516.7	527.2	538.0	548.5	559.3	569.8	580.3	591.1	601.6	612.4	10.62
421.23	412.0	422.5	433.0	443.3	453.8	464.4	474.9	485.4	495.7	506.2	10.47
420.93	308.5	318.8	329.3	339.6	349.9	360.1	370.7	380.9	391.2	401.7	10.35
420.62	206.2	216.5	226.8	236.8	247.1	257.4	267.7	277.9	288.0	298.2	10.23
420.32	105.7	115.7	125.8	135.8	145.8	155.8	166.1	176.2	186.2	196.2	10.06
420.02	6.6	16.4	26.4	36.2	46.2	56.0	66.1	75.8	85.9	95.7	9.91
419.71										0.0	6.61

Exhibit 15 – Mica Reservoir Capacity Table, dated 25 Mar. 1974

English Units - ksf

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
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

Exhibit 15 – Mica Reservoir Capacity Table (English) Continued

ksfd

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
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
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
2404.	6731.2	6735.3	6739.5	6743.7	6747.9	6752.1	6756.3	6760.5	6764.7	6768.9	4.20
2403.	6689.5	6693.7	6697.9	6702.0	6706.2	6710.4	6714.5	6718.7	6722.9	6727.1	4.17
2402.	6648.0	6652.2	6656.3	6660.5	6664.7	6668.8	6673.0	6677.1	6681.3	6685.5	4.16
2401.	6606.7	6610.9	6615.0	6619.2	6623.3	6627.4	6631.6	6635.7	6639.9	6644.0	4.14
2400.	6565.5	6569.7	6573.8	6577.9	6582.1	6586.2	6590.3	6594.5	6598.6	6602.7	4.13
2399.	6524.6	6528.7	6532.8	6536.9	6541.0	6545.1	6549.2	6553.3	6557.4	6561.5	4.11
2398.	6483.9	6487.9	6492.0	6496.1	6500.1	6504.2	6508.3	6512.4	6516.4	6520.5	4.07
2397.	6443.5	6447.6	6451.6	6455.6	6459.6	6463.7	6467.7	6471.8	6475.8	6479.8	4.03
2396.	6403.5	6407.5	6411.5	6415.5	6419.5	6423.5	6427.5	6431.5	6435.5	6439.5	4.00
2395.	6363.9	6367.8	6371.8	6375.7	6379.7	6383.7	6387.6	6391.6	6395.6	6399.5	3.96

Exhibit 15 – Mica Reservoir Capacity Table (English) Continued**ksfd**

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2394.	6324.5	6328.5	6332.4	6336.3	6340.2	6344.2	6348.1	6352.0	6356.0	6359.9	3.93
2393.	6285.6	6289.5	6293.4	6297.2	6301.1	6305.0	6308.9	6312.8	6316.7	6320.6	3.90
2392.	6246.9	6250.8	6254.6	6258.5	6262.4	6266.2	6270.1	6274.0	6277.8	6281.7	3.87
2391.	6208.6	6212.4	6216.2	6220.0	6223.9	6227.7	6231.5	6235.4	6239.2	6243.1	3.83
2390.	6170.6	6174.4	6178.2	6181.9	6185.7	6189.5	6193.3	6197.2	6201.0	6204.8	3.80
2389.	6132.9	6136.7	6140.4	6144.2	6147.9	6151.7	6155.5	6159.2	6163.0	6166.8	3.77
2388.	6095.5	6099.2	6103.0	6106.7	6110.4	6114.2	6117.9	6121.7	6125.4	6129.2	3.74
2387.	6058.4	6062.1	6065.8	6069.5	6073.2	6076.9	6080.6	6084.3	6088.1	6091.8	3.71
2386.	6021.7	6025.3	6029.0	6032.7	6036.3	6040.0	6043.7	6047.4	6051.0	6054.7	3.68
2385.	5985.2	5988.8	5992.5	5996.1	5999.7	6003.4	6007.0	6010.7	6014.3	6018.0	3.65
2384.	5949.0	5952.6	5956.2	5959.8	5963.4	5967.0	5970.7	5974.3	5977.9	5981.6	3.62
2383.	5913.0	5916.6	5920.2	5923.8	5927.4	5931.0	5934.6	5938.2	5941.8	5945.4	3.59
2382.	5877.4	5881.0	5884.5	5888.1	5891.7	5895.2	5898.8	5902.3	5905.9	5909.5	3.56
2381.	5842.1	5845.6	5849.2	5852.7	5856.2	5859.7	5863.3	5866.8	5870.3	5873.9	3.53
2380.	5807.0	5810.5	5814.0	5817.5	5821.0	5824.5	5828.0	5831.6	5835.1	5838.6	3.51
2379.	5772.2	5775.7	5779.1	5782.6	5786.1	5789.6	5793.0	5796.5	5800.0	5803.5	3.48
2378.	5737.6	5741.1	5744.5	5748.0	5751.4	5754.9	5758.3	5761.8	5765.3	5768.7	3.45
2377.	5703.4	5706.8	5710.2	5713.6	5717.1	5720.5	5723.9	5727.3	5730.8	5734.2	3.43
2376.	5669.3	5672.7	5676.1	5679.5	5682.9	5686.3	5689.7	5693.1	5696.5	5700.0	3.41
2375.	5635.5	5638.9	5642.3	5645.6	5649.0	5652.4	5655.8	5659.2	5662.5	5665.9	3.38
2374.	5602.0	5605.3	5608.7	5612.0	5615.4	5618.7	5622.1	5625.5	5628.8	5632.2	3.35
2373.	5568.7	5572.0	5575.4	5578.7	5582.0	5585.3	5588.7	5592.0	5595.3	5598.7	3.33
2372.	5535.6	5538.9	5542.2	5545.5	5548.8	5552.1	5555.4	5558.7	5562.1	5565.4	3.31
2371.	5502.8	5506.1	5509.3	5512.6	5515.9	5519.2	5522.5	5525.7	5529.0	5532.3	3.28
2370.	5470.2	5473.4	5476.7	5479.9	5483.2	5486.5	5489.7	5493.0	5496.3	5499.5	3.26
2369.	5437.8	5441.0	5444.3	5447.5	5450.7	5453.9	5457.2	5460.4	5463.7	5466.9	3.24
2368.	5405.6	5408.9	5412.1	5415.3	5418.5	5421.7	5424.9	5428.1	5431.4	5434.6	3.22
2367.	5373.7	5376.9	5380.1	5383.3	5386.5	5389.7	5392.9	5396.1	5399.3	5402.4	3.19
2366.	5342.0	5345.2	5348.3	5351.5	5354.7	5357.8	5361.0	5364.2	5367.4	5370.5	3.17
2365.	5310.5	5313.6	5316.8	5319.9	5323.0	5326.2	5329.3	5332.5	5335.7	5338.8	3.15
2364.	5279.1	5282.3	5285.4	5288.5	5291.6	5294.8	5297.9	5301.0	5304.2	5307.3	3.13
2363.	5248.0	5251.1	5254.2	5257.4	5260.5	5263.6	5266.7	5269.8	5272.9	5276.0	3.11
2362.	5217.1	5220.2	5223.3	5226.4	5229.5	5232.6	5235.7	5238.7	5241.8	5244.9	3.09
2361.	5186.4	5189.4	5192.5	5195.6	5198.7	5201.7	5204.8	5207.9	5211.0	5214.0	3.07
2360.	5155.9	5158.9	5162.0	5165.0	5168.0	5171.1	5174.2	5177.2	5180.3	5183.3	3.05
2359.	5125.5	5128.5	5131.6	5134.6	5137.6	5140.7	5143.7	5146.7	5149.8	5152.8	3.03
2358.	5095.4	5098.4	5101.4	5104.4	5107.4	5110.4	5113.4	5116.5	5119.5	5122.5	3.02
2357.	5065.4	5068.4	5071.4	5074.4	5077.4	5080.4	5083.4	5086.4	5089.4	5092.4	3.00
2356.	5035.6	5038.5	5041.5	5044.5	5047.5	5050.4	5053.4	5056.4	5059.4	5062.4	2.98
2355.	5005.9	5008.9	5011.9	5014.8	5017.8	5020.7	5023.7	5026.7	5029.6	5032.6	2.96

Exhibit 15 – Mica Reservoir Capacity Table (English) Continued**ksfd**

ELEVATION IN FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	AVERAGE DIFFERENCE PER TENTH FT
2354.	4976.5	4979.4	4982.4	4985.3	4988.3	4991.2	4994.1	4997.1	5000.0	5003.0	2.94
2353.	4947.2	4950.1	4953.0	4956.0	4958.9	4961.8	4964.8	4967.7	4970.6	4973.6	2.93
2352.	4918.0	4920.9	4923.9	4926.8	4929.7	4932.6	4935.5	4938.4	4941.3	4944.3	2.91
2351.	4889.1	4892.0	4894.9	4897.8	4900.6	4903.5	4906.4	4909.3	4912.2	4915.1	2.90
2350.	4860.3	4863.1	4866.0	4868.9	4871.8	4874.6	4877.5	4880.4	4883.3	4886.2	2.88
2349.	4831.6	4834.4	4837.3	4840.2	4843.1	4845.9	4848.8	4851.7	4854.5	4857.4	2.87
2348.	4803.1	4805.9	4808.8	4811.6	4814.5	4817.3	4820.2	4823.0	4825.9	4828.7	2.85
2347.	4774.7	4777.5	4780.4	4783.2	4786.0	4788.9	4791.7	4794.6	4797.4	4800.2	2.84
2346.	4746.5	4749.3	4752.1	4755.0	4757.8	4760.6	4763.4	4766.2	4769.1	4771.9	2.82
2345.	4718.4	4721.2	4724.0	4726.8	4729.6	4732.4	4735.3	4738.1	4740.9	4743.7	2.81
2344.	4690.5	4693.3	4696.1	4698.8	4701.6	4704.4	4707.2	4710.0	4712.8	4715.6	2.79
2343.	4662.7	4665.4	4668.2	4671.0	4673.8	4676.5	4679.3	4682.1	4684.9	4687.7	2.78
2342.	4635.0	4637.8	4640.5	4643.3	4646.1	4648.8	4651.6	4654.4	4657.1	4659.9	2.77
2341.	4607.4	4610.2	4613.0	4615.7	4618.5	4621.2	4624.0	4626.7	4629.5	4632.2	2.76
2340.	4580.0	4582.8	4585.5	4588.2	4591.0	4593.7	4596.5	4599.2	4602.0	4604.7	2.74
2339.	4552.7	4555.4	4558.2	4560.9	4563.6	4566.4	4569.1	4571.8	4574.6	4577.3	2.73
2338.	4525.5	4528.2	4530.9	4533.6	4536.4	4539.1	4541.8	4544.5	4547.3	4550.0	2.72
2337.	4498.3	4501.0	4503.7	4506.5	4509.2	4511.9	4514.6	4517.3	4520.0	4522.8	2.72
2336.	4471.2	4473.9	4476.6	4479.3	4482.0	4484.7	4487.5	4490.2	4492.9	4495.6	2.71
2335.	4444.2	4446.9	4449.6	4452.3	4455.0	4457.7	4460.4	4463.1	4465.8	4468.5	2.70
2334.	4417.3	4420.0	4422.6	4425.3	4428.0	4430.7	4433.4	4436.1	4438.8	4441.5	2.69
2333.	4390.4	4393.1	4395.8	4398.4	4401.1	4403.8	4406.5	4409.2	4411.9	4414.6	2.69
2332.	4363.6	4366.3	4368.9	4371.6	4374.3	4377.0	4379.7	4382.3	4385.0	4387.7	2.68
2331.	4336.9	4339.6	4342.2	4344.9	4347.6	4350.2	4352.9	4355.6	4358.2	4360.9	2.67
2330.	4310.2	4312.9	4315.6	4318.2	4320.9	4323.6	4326.2	4328.9	4331.6	4334.2	2.66
2329.	4283.7	4286.3	4289.0	4291.6	4294.3	4296.9	4299.6	4302.3	4304.9	4307.6	2.66
2328.	4257.2	4259.8	4262.5	4265.1	4267.8	4270.4	4273.1	4275.7	4278.4	4281.0	2.65
2327.	4230.8	4233.4	4236.1	4238.7	4241.3	4244.0	4246.6	4249.3	4251.9	4254.5	2.64
2326.	4204.5	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	2.63
2324.	4152.0	4154.6	4157.2	4159.9	4162.5	4165.1	4167.7	4170.3	4173.0	4175.6	2.62
2323.	4125.9	4128.5	4131.2	4133.8	4136.4	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	2.61
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
2319.	4022.3	4024.9	4027.5	4030.0	4032.6	4035.2	4037.8	4040.4	4042.9	4045.5	2.58

Exhibit 15M – Mica Reservoir Capacity Table, dated 25 Mar. 1974
SI Units - hm³

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
754.38	24762.3										13.16
754.08	24631.1	24644.4	24657.3	24670.5	24683.5	24696.7	24709.9	24722.9	24736.1	24749.1	13.11
753.77	24500.5	24513.5	24526.7	24539.6	24552.9	24565.8	24578.8	24592.0	24605.0	24618.2	13.06
753.47	24370.1	24383.1	24396.3	24409.2	24422.2	24435.2	24448.4	24461.4	24474.3	24487.5	13.04
753.16	24240.4	24253.4	24266.4	24279.3	24292.3	24305.3	24318.2	24331.2	24344.2	24357.1	12.97
752.86	24110.8	24123.7	24136.7	24149.7	24162.6	24175.6	24188.6	24201.5	24214.5	24227.5	12.97
752.55	23981.8	23994.8	24007.5	24020.5	24033.4	24046.4	24059.1	24072.1	24085.1	24097.8	12.89
752.25	23853.1	23866.1	23878.8	23891.8	23904.5	23917.5	23930.4	23943.2	23956.1	23968.9	12.87
751.94	23724.9	23737.6	23750.6	23763.3	23776.3	23789.0	23801.7	23814.7	23827.4	23840.4	12.82
751.64	23597.0	23609.7	23622.7	23635.4	23648.1	23661.1	23673.8	23686.5	23699.2	23712.2	12.80
751.33	23469.5	23482.2	23494.9	23507.7	23520.4	23533.4	23546.1	23558.8	23571.5	23584.2	12.75
751.03	23342.5	23355.2	23368.0	23380.7	23393.4	23406.1	23418.6	23431.3	23444.1	23456.8	12.70
750.72	23215.8	23228.5	23241.2	23253.7	23266.4	23279.2	23291.9	23304.6	23317.1	23329.8	12.67
750.42	23089.5	23102.3	23114.7	23127.5	23139.9	23152.7	23165.4	23177.9	23190.6	23203.1	12.62
750.11	22963.8	22976.3	22989.0	23001.5	23014.2	23026.7	23039.1	23051.9	23064.3	23077.1	12.58
749.81	22838.5	22851.0	22863.5	22876.2	22888.7	22901.2	22913.6	22926.1	22938.8	22951.3	12.53
749.50	22713.5	22726.0	22738.5	22750.9	22763.4	22776.1	22788.6	22801.1	22813.6	22826.0	12.50
749.20	22589.0	22601.4	22613.9	22626.4	22638.9	22651.4	22663.6	22676.1	22688.5	22701.0	12.45
748.90	22464.7	22477.2	22489.6	22501.9	22514.3	22526.8	22539.3	22551.8	22564.0	22576.5	12.43
748.59	22340.9	22353.4	22365.6	22378.1	22390.3	22402.8	22415.3	22427.5	22440.0	22452.2	12.38
748.29	22217.6	22229.8	22242.3	22254.5	22267.0	22279.2	22291.5	22303.9	22316.2	22328.7	12.33
747.98	22094.8	22107.0	22119.2	22131.7	22143.9	22156.2	22168.4	22180.6	22193.1	22205.3	12.28
747.68	21972.2	21984.4	21996.6	22008.9	22021.1	22033.6	22045.8	22058.1	22070.3	22082.5	12.26
747.37	21850.1	21862.3	21874.6	21886.8	21899.0	21911.3	21923.2	21935.5	21947.7	21959.9	12.21
747.07	21728.3	21740.5	21752.7	21764.7	21776.9	21789.2	21801.4	21813.6	21825.6	21837.9	12.18
746.76	21606.9	21619.1	21631.1	21643.4	21655.3	21667.6	21679.8	21691.8	21704.0	21716.0	12.14
746.46	21486.0	21498.0	21510.3	21522.3	21534.5	21546.5	21558.5	21570.7	21582.7	21594.9	12.09
746.15	21365.7	21377.7	21389.6	21401.9	21413.9	21425.9	21437.8	21449.8	21462.1	21474.1	12.04
745.85	21245.5	21257.5	21269.5	21281.5	21293.5	21305.7	21317.7	21329.7	21341.7	21353.7	12.01
745.54	21125.9	21137.9	21149.9	21161.9	21173.9	21185.8	21197.6	21209.6	21221.6	21233.6	11.96
745.24	21006.5	21018.5	21030.5	21042.2	21054.2	21066.2	21078.2	21090.2	21101.9	21113.9	11.94
744.93	20887.8	20899.8	20911.6	20923.6	20935.3	20947.3	20959.0	20971.0	20982.8	20994.8	11.87
744.63	20769.4	20781.2	20793.2	20804.9	20816.9	20828.6	20840.4	20852.4	20864.1	20876.1	11.84
744.32	20651.3	20663.0	20675.0	20686.7	20698.5	20710.5	20722.2	20734.0	20745.7	20757.7	11.82
744.02	20533.6	20545.3	20557.1	20568.8	20580.6	20592.5	20604.3	20616.0	20627.8	20639.5	11.77
743.71	20416.4	20428.1	20439.9	20451.6	20463.4	20475.1	20486.6	20498.3	20510.1	20521.8	11.72
743.41	20299.7	20311.4	20322.9	20334.7	20346.4	20358.2	20369.7	20381.4	20393.1	20404.6	11.67
743.10	20183.2	20195.0	20206.5	20218.2	20229.7	20241.5	20253.2	20264.7	20276.4	20287.9	11.65
742.80	20067.3	20078.8	20090.5	20102.0	20113.7	20125.2	20136.7	20148.5	20160.0	20171.7	11.60
742.49	19951.5	19963.0	19974.8	19986.3	19997.8	20009.5	20021.0	20032.5	20044.0	20055.8	11.57
742.19	19836.5	19848.0	19859.5	19871.0	19882.5	19894.0	19905.5	19917.0	19928.5	19940.0	11.50

Exhibit 15M – Mica Reservoir Capacity Table (SI) Continued

hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
741.88	19721.8	19733.3	19744.8	19756.3	19767.8	19779.3	19790.5	19802.0	19813.5	19825.0	11.47
741.58	19607.3	19618.8	19630.3	19641.5	19653.0	19664.5	19676.0	19687.5	19698.8	19710.3	11.45
741.28	19493.3	19504.8	19516.0	19527.5	19538.8	19550.3	19561.8	19573.0	19584.5	19595.8	11.40
740.97	19379.8	19391.0	19402.5	19413.8	19425.3	19436.5	19447.8	19459.3	19470.5	19482.0	11.35
740.67	19266.7	19278.0	19289.2	19300.7	19312.0	19323.2	19334.5	19345.8	19357.3	19368.5	11.30
740.36	19153.9	19165.2	19176.5	19187.7	19199.0	19210.5	19221.7	19233.0	19244.2	19255.5	11.28
740.06	19041.6	19052.9	19064.2	19075.4	19086.7	19097.9	19108.9	19120.2	19131.4	19142.7	11.23
739.75	18929.8	18941.1	18952.1	18963.4	18974.6	18985.9	18996.9	19008.1	19019.4	19030.4	11.18
739.45	18818.3	18829.5	18840.5	18851.8	18862.8	18874.1	18885.3	18896.3	18907.6	18918.6	11.16
739.14	18707.2	18718.2	18729.5	18740.5	18751.7	18762.7	18773.7	18785.0	18796.0	18807.3	11.11
738.84	18596.4	18607.4	18618.6	18629.6	18640.6	18651.9	18662.9	18673.9	18684.9	18696.2	11.08
738.53	18486.3	18497.3	18508.3	18519.3	18530.3	18541.3	18552.3	18563.3	18574.3	18585.4	11.01
738.23	18376.4	18387.4	18398.4	18409.4	18420.5	18431.5	18442.2	18453.2	18464.2	18475.3	10.99
737.92	18266.8	18277.8	18288.8	18299.6	18310.6	18321.6	18332.6	18343.6	18354.4	18365.4	10.96
737.62	18157.7	18168.7	18179.5	18190.5	18201.2	18212.2	18223.3	18234.0	18245.0	18255.8	10.91
737.31	18049.1	18059.8	18070.8	18081.6	18092.6	18103.4	18114.1	18125.1	18135.9	18146.9	10.86
737.01	17940.9	17951.7	17962.4	17973.5	17984.2	17995.0	18005.8	18016.5	18027.5	18038.3	10.81
736.70	17833.0	17843.8	17854.6	17865.3	17876.1	17887.1	17897.9	17908.6	17919.4	17930.2	10.79
736.40	17725.6	17736.4	17747.1	17757.9	17768.7	17779.4	17790.0	17800.7	17811.5	17822.3	10.74
736.09	17618.7	17629.5	17640.0	17650.8	17661.5	17672.3	17682.8	17693.6	17704.3	17714.9	10.69
735.79	17512.0	17522.8	17533.3	17544.1	17554.6	17565.4	17576.1	17586.7	17597.4	17607.9	10.67
735.48	17405.8	17416.4	17427.1	17437.7	17448.4	17458.9	17469.5	17480.2	17490.7	17501.5	10.62
735.18	17299.9	17310.4	17321.2	17331.7	17342.2	17353.0	17363.5	17374.0	17384.6	17395.3	10.59
734.87	17194.7	17205.2	17215.7	17226.3	17236.8	17247.3	17257.8	17268.3	17278.9	17289.4	10.52
734.57	17089.7	17100.3	17110.8	17121.3	17131.8	17142.3	17152.6	17163.1	17173.7	17184.2	10.50
734.26	16985.0	16995.6	17006.1	17016.3	17026.9	17037.4	17047.9	17058.4	17068.7	17079.2	10.47
733.96	16880.8	16891.3	16901.6	16912.1	16922.4	16932.9	16943.4	16953.7	16964.2	16974.5	10.42
733.66	16777.1	16787.3	16797.9	16808.1	16818.7	16828.9	16839.2	16849.7	16860.0	16870.5	10.37
733.35	16673.8	16684.1	16694.4	16704.9	16715.2	16725.4	16735.7	16746.0	16756.5	16766.8	10.32
733.05	16570.8	16581.1	16591.4	16601.6	16611.9	16622.4	16632.7	16643.0	16653.3	16663.5	10.30
732.74	16468.4	16478.7	16489.0	16499.2	16509.5	16519.8	16530.0	16540.3	16550.6	16560.8	10.27
732.44	16366.6	16376.8	16387.0	16397.2	16407.4	16417.6	16427.8	16438.0	16448.2	16458.5	10.21
732.13	16265.1	16275.3	16285.4	16295.6	16305.7	16315.9	16326.1	16336.3	16346.4	16356.6	10.17
731.83	16164.1	16174.2	16184.3	16194.4	16204.5	16214.6	16224.8	16234.9	16245.1	16255.2	10.13
731.52	16063.3	16073.4	16083.5	16093.6	16103.7	16113.8	16123.9	16134.0	16144.1	16154.2	10.10
731.22	15963.0	15973.1	15983.1	15993.1	16003.2	16013.2	16023.3	16033.3	16043.4	16053.4	10.05
730.91	15863.5	15873.4	15883.3	15893.3	15903.2	15913.2	15923.1	15933.1	15943.1	15953.1	9.96
730.61	15764.8	15774.6	15784.5	15794.3	15804.2	15814.0	15823.9	15833.8	15843.7	15853.6	9.87
730.30	15666.8	15676.6	15686.4	15696.2	15706.0	15715.7	15725.5	15735.3	15745.1	15755.0	9.79
730.00	15569.8	15579.5	15589.2	15598.9	15608.6	15618.2	15628.0	15637.7	15647.4	15657.1	9.70

Exhibit 15M – Mica Reservoir Capacity Table (SI) Continued

hm^3

ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
729.69	15473.6	15483.2	15492.8	15502.4	15512.0	15521.6	15531.3	15540.9	15550.6	15560.2	9.62
729.39	15378.3	15387.8	15397.3	15406.8	15416.4	15425.9	15435.4	15445.0	15454.5	15464.1	9.53
729.08	15283.7	15293.1	15302.6	15312.0	15321.5	15330.9	15340.4	15349.9	15359.3	15368.8	9.46
728.78	15189.9	15199.3	15208.6	15218.0	15227.3	15236.6	15246.0	15255.4	15264.8	15274.3	9.37
728.47	15096.9	15106.2	15115.5	15124.8	15134.0	15143.3	15152.6	15162.0	15171.3	15180.6	9.30
728.17	15004.7	15013.9	15023.1	15032.3	15041.5	15050.7	15060.0	15069.2	15078.5	15087.7	9.22
727.86	14913.2	14922.4	14931.5	14940.6	14949.8	14958.9	14968.1	14977.3	14986.4	14995.6	9.15
727.56	14822.5	14831.6	14840.6	14849.7	14858.7	14867.8	14876.8	14885.9	14895.0	14904.1	9.07
727.25	14732.6	14741.5	14750.5	14759.5	14768.5	14777.4	14786.5	14795.5	14804.5	14813.5	8.99
726.95	14643.4	14652.3	14661.2	14670.0	14678.9	14687.8	14696.8	14705.7	14714.7	14723.6	8.92
726.64	14554.7	14563.6	14572.4	14581.3	14590.1	14599.0	14607.8	14616.7	14625.6	14634.5	8.86
726.34	14466.8	14475.6	14484.4	14493.2	14502.0	14510.7	14519.5	14528.3	14537.1	14545.9	8.79
726.04	14379.7	14388.4	14397.1	14405.8	14414.5	14423.2	14431.9	14440.7	14449.4	14458.1	8.71
725.73	14293.3	14301.9	14310.6	14319.2	14327.8	14336.4	14345.1	14353.7	14362.4	14371.0	8.64
725.43	14207.4	14215.9	14224.5	14233.1	14241.7	14250.3	14258.9	14267.5	14276.1	14284.7	8.59
725.12	14122.2	14130.7	14139.2	14147.7	14156.2	14164.7	14173.3	14181.8	14190.3	14198.8	8.51
724.82	14037.7	14046.2	14054.6	14063.0	14071.5	14079.9	14088.4	14096.8	14105.3	14113.8	8.45
724.51	13953.8	13962.2	13970.6	13979.0	13987.4	13995.7	14004.1	14012.5	14020.9	14029.3	8.39
724.21	13870.5	13878.8	13887.2	13895.5	13903.8	13912.2	13920.5	13928.8	13937.2	13945.5	8.33
723.90	13787.9	13796.1	13804.4	13812.6	13820.9	13829.1	13837.4	13845.7	13854.0	13862.2	8.26
723.60	13705.8	13714.0	13722.2	13730.4	13738.6	13746.8	13755.0	13763.2	13771.4	13779.7	8.20
723.29	13624.4	13632.5	13640.7	13648.8	13656.9	13665.1	13673.2	13681.4	13689.5	13697.7	8.14
722.99	13543.4	13551.5	13559.6	13567.6	13575.7	13583.8	13591.9	13600.0	13608.1	13616.3	8.09
722.68	13463.1	13471.1	13479.2	13487.2	13495.2	13503.2	13511.3	13519.3	13527.3	13535.4	8.03
722.38	13383.4	13391.3	13399.3	13407.2	13415.2	13423.2	13431.2	13439.1	13447.1	13455.1	7.97
722.07	13304.2	13312.1	13319.9	13327.8	13335.7	13343.6	13351.5	13359.5	13367.5	13375.4	7.92
721.77	13225.5	13233.3	13241.2	13249.0	13256.8	13264.7	13272.6	13280.5	13288.4	13296.3	7.87
721.46	13147.3	13155.1	13162.9	13170.7	13178.5	13186.3	13194.2	13202.0	13209.8	13217.6	7.81
721.16	13069.7	13077.5	13085.2	13092.9	13100.7	13108.4	13116.2	13124.0	13131.8	13139.5	7.76
720.85	12992.6	13000.3	13008.0	13015.7	13023.3	13031.0	13038.8	13046.5	13054.2	13062.0	7.71
720.55	12915.9	12923.6	12931.2	12938.9	12946.5	12954.2	12961.9	12969.5	12977.2	12984.9	7.66
720.24	12839.9	12847.4	12855.0	12862.6	12870.2	12877.8	12885.4	12893.1	12900.7	12908.3	7.61
719.94	12764.2	12771.7	12779.3	12786.9	12794.4	12802.0	12809.5	12817.1	12824.7	12832.3	7.56
719.63	12689.0	12696.5	12704.0	12711.5	12719.1	12726.6	12734.1	12741.6	12749.1	12756.7	7.52
719.33	12614.3	12621.8	12629.2	12636.7	12644.2	12651.6	12659.1	12666.6	12674.0	12681.5	7.46
719.02	12540.1	12547.5	12554.9	12562.3	12569.7	12577.2	12584.6	12592.0	12599.5	12606.9	7.42
718.72	12466.3	12473.7	12481.0	12488.4	12495.8	12503.2	12510.5	12517.9	12525.3	12532.7	7.38
718.42	12392.9	12400.2	12407.6	12414.9	12422.3	12429.6	12436.9	12444.3	12451.6	12459.0	7.34
718.11	12320.0	12327.3	12334.6	12341.9	12349.1	12356.4	12363.7	12371.0	12378.3	12385.6	7.29
717.81	12247.5	12254.8	12262.0	12269.2	12276.5	12283.7	12291.0	12298.2	12305.5	12312.7	7.25

Exhibit 15M – Mica Reservoir Capacity Table (SI) Continued

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ELEVATION IN METERS	.00	.03	.06	.09	.12	.15	.18	.21	.24	.27	AVERAGE DIFFERENCE PER 3/100 M
717.50	12175.5	12182.7	12189.9	12197.1	12204.3	12211.5	12218.7	12225.9	12233.1	12240.3	7.20
717.20	12103.7	12110.9	12118.1	12125.2	12132.4	12139.6	12146.8	12153.9	12161.1	12168.3	7.17
716.89	12032.5	12039.6	12046.7	12053.8	12061.0	12068.1	12075.2	12082.3	12089.5	12096.6	7.13
716.59	11961.6	11968.7	11975.8	11982.8	11989.9	11997.0	12004.1	12011.2	12018.3	12025.4	7.09
716.28	11891.1	11898.2	11905.2	11912.2	11919.3	11926.3	11933.4	11940.4	11947.5	11954.5	7.04
715.98	11820.9	11828.0	11835.0	11842.0	11849.0	11856.0	11863.1	11870.1	11877.1	11884.1	7.02
715.67	11751.2	11758.2	11765.1	11772.1	11779.1	11786.0	11793.0	11800.0	11807.0	11814.0	6.97
715.37	11681.8	11688.8	11695.7	11702.6	11709.5	11716.5	11723.4	11730.4	11737.3	11744.3	6.94
715.06	11612.8	11619.7	11626.6	11633.5	11640.4	11647.3	11654.2	11661.1	11668.0	11674.9	6.90
714.76	11544.0	11550.9	11557.8	11564.7	11571.5	11578.4	11585.3	11592.2	11599.0	11605.9	6.87
714.45	11475.7	11482.5	11489.4	11496.2	11503.0	11509.8	11516.7	11523.5	11530.4	11537.2	6.83
714.15	11407.7	11414.5	11421.3	11428.1	11434.9	11441.6	11448.5	11455.3	11462.1	11468.9	6.80
713.84	11340.0	11346.8	11353.5	11360.3	11367.1	11373.8	11380.6	11387.4	11394.1	11400.9	6.77
713.54	11272.6	11279.3	11286.0	11292.8	11299.5	11306.3	11313.0	11319.8	11326.5	11333.3	6.74
712.93	11138.7	11145.4	11152.0	11158.7	11165.4	11172.1	11178.8	11185.4	11192.1	11198.8	6.68
712.62	11072.0	11078.7	11085.4	11092.0	11098.7	11105.3	11112.0	11118.7	11125.3	11132.0	6.66
712.32	11005.5	11012.2	11018.8	11025.5	11032.1	11038.8	11045.4	11052.1	11058.7	11065.4	6.65
712.01	10939.3	10945.9	10952.5	10959.1	10965.8	10972.4	10979.0	10985.6	10992.3	10998.9	6.63
711.71	10873.2	10879.8	10886.4	10893.0	10899.6	10906.2	10912.8	10919.4	10926.0	10932.7	6.61
711.40	10807.3	10813.9	10820.5	10827.0	10833.6	10840.2	10846.8	10853.4	10860.0	10866.6	6.59
711.10	10741.5	10748.1	10754.7	10761.2	10767.8	10774.4	10781.0	10787.5	10794.1	10800.7	6.58
710.80	10676.0	10682.5	10689.1	10695.6	10702.2	10708.7	10715.3	10721.8	10728.4	10734.9	6.55
710.49	10610.6	10617.1	10623.7	10630.2	10636.7	10643.3	10649.8	10656.3	10662.9	10669.4	6.53
710.19	10545.4	10552.0	10558.5	10565.0	10571.5	10578.0	10584.5	10591.1	10597.6	10604.1	6.52
709.88	10480.4	10486.9	10493.4	10499.9	10506.4	10512.9	10519.4	10525.9	10532.4	10538.9	6.50
709.58	10415.6	10422.1	10428.6	10435.1	10441.5	10448.0	10454.5	10461.0	10467.5	10473.9	6.48
709.27	10351.0	10357.5	10363.9	10370.4	10376.8	10383.3	10389.8	10396.2	10402.7	10409.2	6.46
708.97	10286.6	10293.0	10299.5	10305.9	10312.3	10318.8	10325.2	10331.7	10338.1	10344.6	6.44
708.66	10222.4	10228.8	10235.2	10241.6	10248.0	10254.4	10260.9	10267.3	10273.7	10280.2	6.43
708.36	10158.3	10164.7	10171.1	10177.5	10183.9	10190.3	10196.7	10203.1	10209.5	10215.9	6.40
708.05	10094.5	10100.9	10107.3	10113.6	10120.0	10126.4	10132.8	10139.2	10145.5	10151.9	6.38
707.75	10030.8	10037.1	10043.5	10049.9	10056.2	10062.6	10069.0	10075.4	10081.8	10088.1	6.37
707.44	9967.4	9973.7	9980.0	9986.4	9992.7	9999.0	10005.4	10011.7	10018.1	10024.4	6.34
707.14	9904.1	9910.4	9916.7	9923.1	9929.4	9935.7	9942.0	9948.4	9954.7	9961.0	6.33
706.83	9841.0	9847.3	9853.7	9859.8	9866.2	9872.5	9878.8	9885.1	9891.5	9897.8	6.31