

**ANNUAL REPORT
to the
INTERNATIONAL JOINT COMMISSION
from the
INTERNATIONAL OSOYOOS LAKE BOARD OF CONTROL
for
CALENDAR YEAR 1997**

1. ACTIVITIES OF THE BOARD

The International Osoyoos Lake Board of Control was established on February 12, 1986, by the International Joint Commission to carry out the provisions of the Commission Order of Approval dated December 9, 1982, and the Supplementary Order of Approval dated October 17, 1985.

The Board met in Osoyoos, B.C., on October 30, 1997, and also held a public meeting that day.

2. OPERATION AND MAINTENANCE OF ZOSEL DAM

a. Osoyoos Lake Elevations

Levels of Osoyoos Lake were controlled by Zosel Dam throughout the year with minor deviations from criteria specified in the Order of Approval. The stage exceeded 911.50 feet for part of each day October 11- 13, and the stage dropped below 911.00 feet for part of each day April 3, 10, 12, 13, and 16. The authorized range of normal operating elevations, 909.0 to 911.5 feet, is shown by the blue area in appendix I. The grey area in appendix I shows the authorized range of elevations, 910.5 to 913.0 feet, that may be used to provide additional storage from April 1 to October 31 if drought conditions are declared by the Board. Drought conditions did not occur, and criteria for normal operation applied during the year.

The Order of Approval recognizes that backwater from high flows in the Similkameen River or excessive flows in the Okanogan River can cause Osoyoos Lake levels to rise above the authorized range. This happened in 1997 when high river flows for the Okanogan River and/or backwater from the Similkameen River caused the lake level to exceed 911.5 feet during the periods April 23 - September 27 and October 12-13.

Recorded lake elevations for water years 1995-97 are shown in appendix I.

Data on Osoyoos Lake levels and relevant river flows are summarized in appendix II and depicted in the hydrographs in appendix III.

b. Drought Operation

Drought conditions did not occur during the year.

c. Zosel Dam

The Oroville-Tonasket Irrigation District operated Zosel Dam under authority from the State of Washington, Department of Ecology. With the exceptions given in 2a, the levels on Osoyoos Lake were maintained for the year in accordance with the Commission's Orders of Approval.

3. IMPROVEMENTS TO THE OKANOGAN RIVER CHANNEL

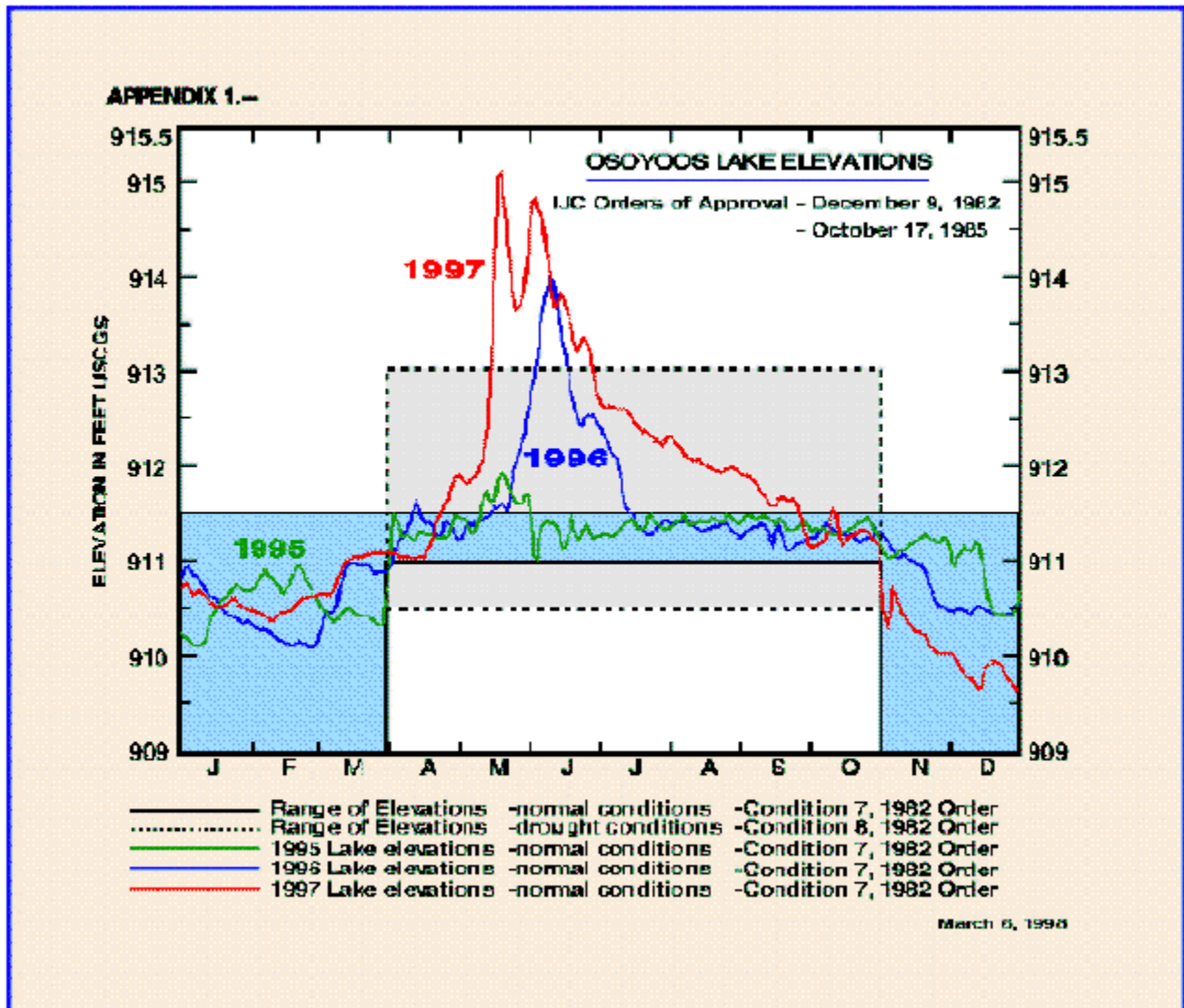
The Board has obtained confirmation from the State regarding the capacities of the Okanogan

River Channel. Hydrologic conditions in 1997 demonstrated that water is able to be moved out of the lake, through the channel, and past the dam at a rate greater than 2,500 cubic feet per second with the lake at elevation 913.0 and no appreciable backwater effect from the Similkameen River.

4. OKANOGAN RIVER FLOWS

The maximum instantaneous flow on the Okanogan River occurred on June 7 at Oroville and was 3,770 cubic feet per second. This was the peak flow for the period of record, which has been continuous since October of 1942. Osoyoos Lake mean daily elevation for this day was 914.46 feet, and the Okanogan River at Oroville was in backwater from the Similkameen River on this day.

The maximum instantaneous elevation on Osoyoos Lake occurred on May 18 and 19 at 915.13 feet, and the mean daily discharge for these days was 1,850 and 3,110 cubic feet per second, respectively, at Okanogan River at Oroville.



APPENDIX II -- OSOYOOS LAKE LEVELS, INFLOWS, AND OUTFLOWS

A. International gaging stations in operation throughout the year:

(1) For Stage Records

Osoyoos Lake near Oroville, Washington

Okanagan River at Oroville, Washington (auxiliary gage)

(2) For Discharge Records

Okanagan River near Oliver, British Columbia

Okanagan River near Oroville, Washington (base gage)

Similkameen River near Nighthawk, Washington

(3) Reports

Monthly summary reports of stage and discharge data were forwarded to the International Joint Commission and to the Board of Control members.

B. Compliance with the lake levels specified in the Orders of Approval is measured at the station "Osoyoos Lake near Oroville," where elevations are expressed in terms of USCGS datum.

C. Osoyoos Lake

Maximum daily mean elevation	278.919 meters (916.09 feet)	- May 19
Maximum instantaneous elevation	278.932 meters (916.13 feet)	- May 18 and 19
Minimum instantaneous elevation	277.248 meters (909.58 feet)	- December 31

D. Okanagan River at Oroville

Maximum instantaneous discharge	107 cms (3,770 cfs)	- June 7
Maximum daily mean discharge	104 cms (3,680 cfs)	- June 8
Annual mean discharge	50.4 cms (1,779 cfs)	

The annual mean discharge was 256 percent of the 55-year average of 694 cfs.

E. Similkameen River near Nighthawk

Maximum instantaneous discharge	769 cms (26,800 cfs)	- May 17
Maximum daily mean discharge	745 cms (26,300 cfs)	- May 17

High river discharges and stages created backwater conditions for the Okanagan River at Oroville gaging station on April 27 - 30, May 7 to July 8, and July 9 - 11.

APPENDIX III.—

