International Joint Commission

Kootenay Lake Board of Control

KOOTENAY LAKE BOARD OF CONTROL

BONNERS FERRY IDAHO

OCTOBER 2, 2000

International Joint Commission

Kootenay Lake Board of Control

PRESENTATION OUTLINE

- International Joint Commission.
- Kootenay Lake Board of Control.
- Overview of Kootenay Basin Geography.
- Historical Background of 1938 Kootenay Lake Order.
- Lake Elevation and River Flow Data.

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THE

INTERNATIONAL

JOINT

COMMISSION

International Joint Commission

Kootenay Lake Board of Control

INTERNATIONAL JOINT COMMMISSION

- Three members from Canada and three from the United States.
  - Canadian members appointed by the Governor in Council.
  - U.S. members appointed by the President of the United States.

INTERNATIONAL JOINT COMMISSION MEMBERSHIP

	CANADA	UNITED STATES
CHAIR:	LEONARD LEGAULT (Ottawa)	THOMAS L. BALDINI (Michigan)
COMMISSIONER:	FRANK MURPHY (British Columbia)	SUSAN B. BAYH (Indiana)
COMMISSIONER:	ROBERT GOURD (Quebec)	ALICE CHAMBERLIN (New Hampshire)

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Kootenay Lake Board of Control

INTERNATIONAL JOINT COMMMISSION

- Established by the Boundary Waters Treaty of 1909.
- Purpose of the Commission is to prevent and resolve disputes over use of waters shared by Canada and the United States.

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Kootenay Lake Board of Control

INTERNATIONAL JOINT COMMMISSION

- To prevent and resolve issues, the Commission:
  - Undertakes Investigations.
  - Holds hearings.
  - Issues Orders----For example the, the 1938 IJC Order on Kootenay Lake.
- The Commission appoints Boards of Control to monitor its Orders.

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Kootenay Lake Board of Control

THE

KOOTENAY LAKE

BOARD

OF CONTROL

KOOTENAY LAKE BOARD OF CONTROL

- Consists of two members each from Canada and the United States.
- Appointed by the Canadian and U.S. Sections of the IJC.

KOOTENAY LAKE BOARD OF CONTROL

CANADA

KIRK JOHNSTONE
Chair
Manager
Aquatic and Atmospheric Sciences
Division, Pacific and Yukon Region,
Environment Canada

JAMES MATTISON
Member
Director, Water Management
Water Management Division
Ministry of Environment,
Land & Parks

UNITED STATES

COLONEL RALPH GRAVES
Chair
District Engineer
Seattle District
U.S. Army Corps of Engineers

DERRILL COWING
Member
District Chief, Idaho
Water Resources Division
U.S. Geological Survey

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KOOTENAY LAKE BOARD OF CONTROL

- Duties of the Kootenay Lake Board of Control:
  - Monitor West Kootenay Power's operation of Corra Linn Dam to assure Kootenay Lake levels are within limits prescribed by the 1938 IJC Order.
  - Assure all other provisions of the 1938 IJC Order are followed.
  - Provide general advice and assistance to the IJC on issues relating to the 1938 IJC Order.
  - Monitor IJC Orders on Duck Lake near the southern inlet to Kootenay Lake.

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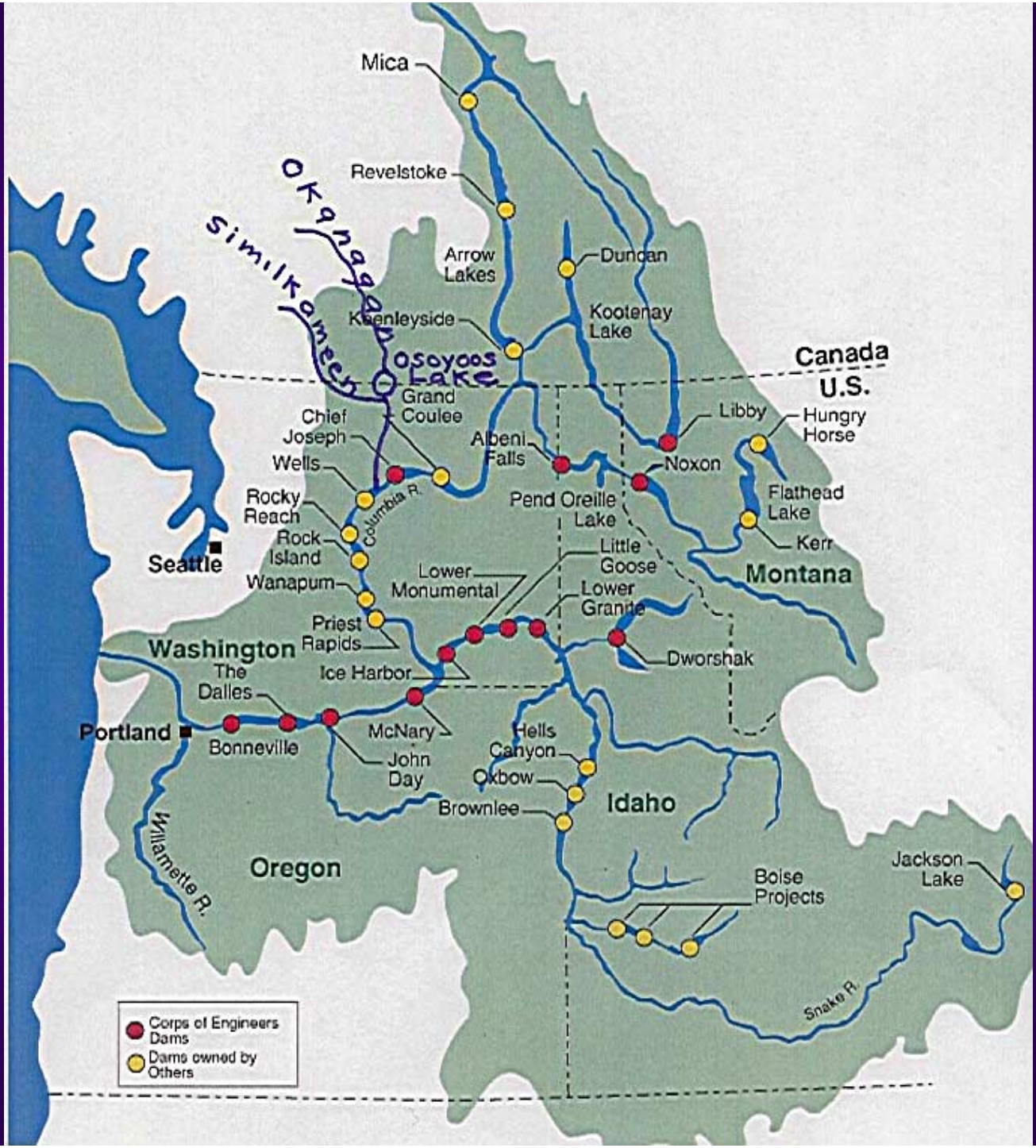
Kootenay Lake Board of Control

KOOTENAY

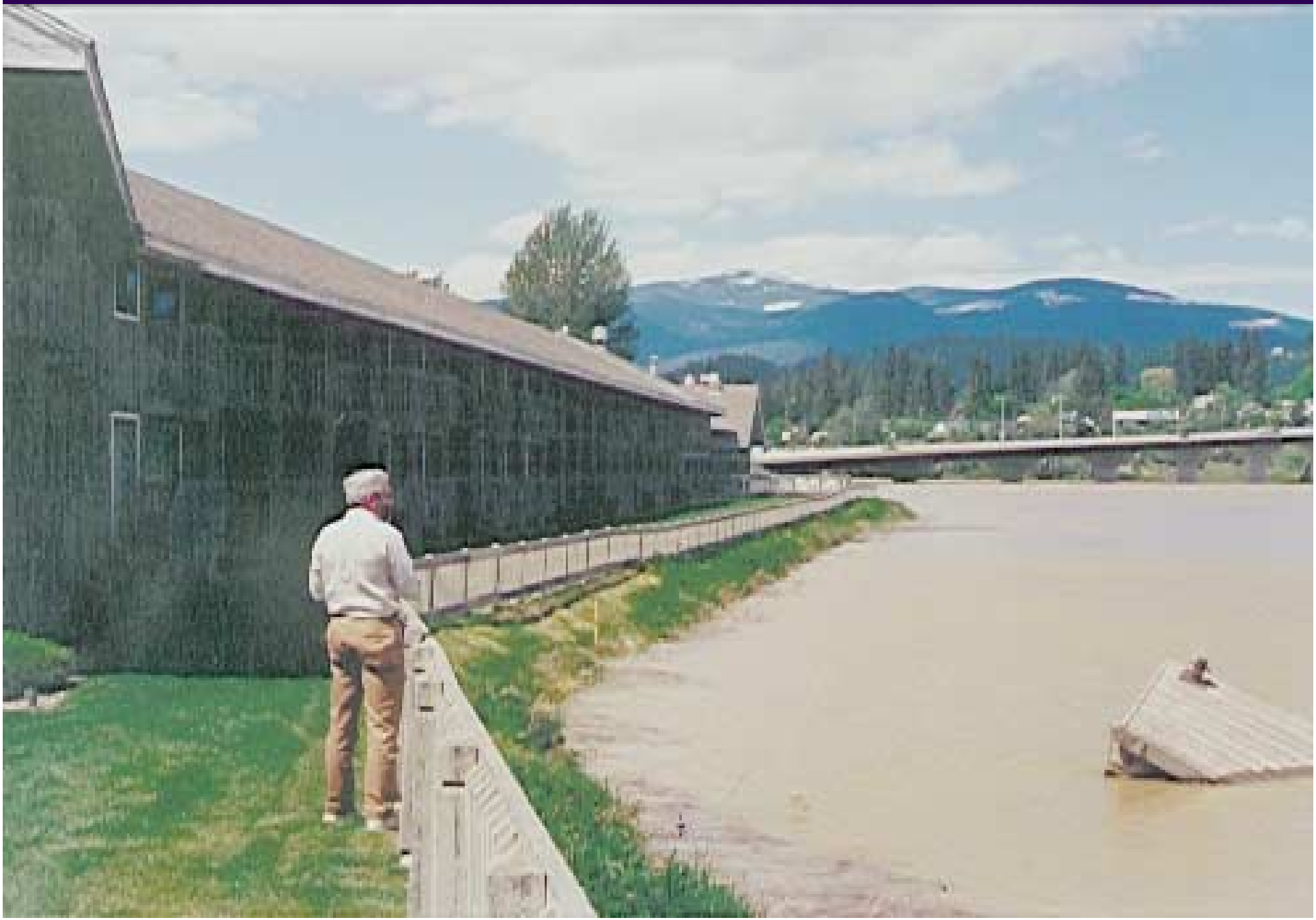
BASIN

GEOGRAPHY

& PHOTOGRAPHS


Mica
Revelstoke
Okanagan
Similkameen
Arrow Lakes
Duncan
Kootenay Lake
Keenleyside
Osoyoos Lake
Canada
U.S.
Grand Coulee
Chief Joseph
Wells
Rocky Reach
Rock Island
Wanapum
Priest Rapids
Columbia R.
Albeni Falls
Libby
Hungry Horse
Noxon
Pend Oreille Lake
Flathead Lake
Kerr
Little Goose
Lower Monumental
Lower Granite
Dworshak
Montana
Seattle
Washington
The Dalles
Ice Harbor
Portland
Bonneville
McNary
John Day
Hells Canyon
Oxbow
Brownlee
Idaho
Willamette R.
Oregon
Boise Projects
Jackson Lake
Snake R.
Corps of Engineers Dams
Dams owned by Others

Kootenay River Inn May 17, 1997 Bonners Ferry Gage = 1764.67 feet.



Kootenay River Basin

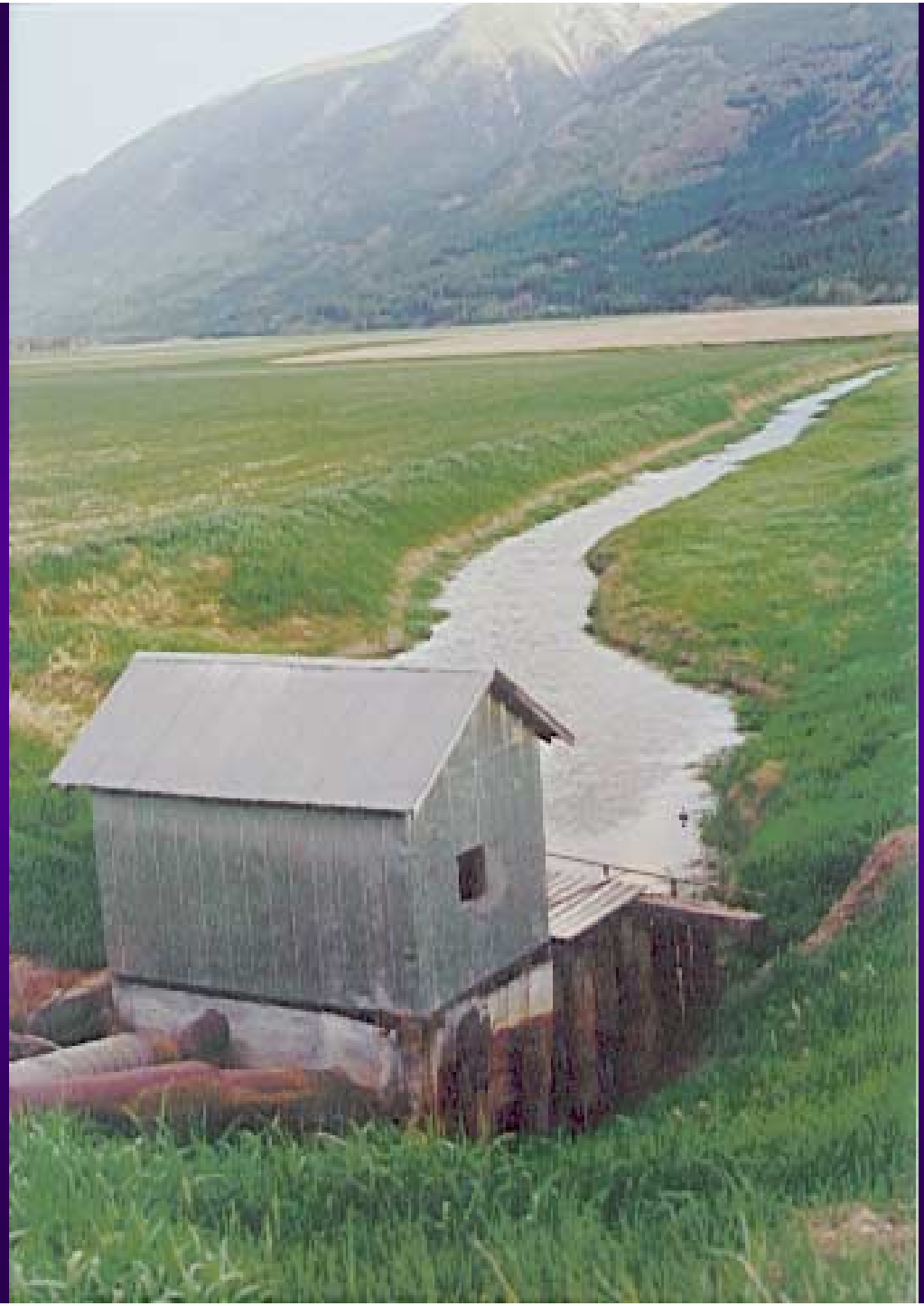
Agricultural Drainage Pump

May 17, 1997

Bonners Ferry Gage reading

= ~ 1764.5 feet.

Water is pumped from field into river.



West Arm of Kootenay Lake June 17, 1997 Lake Stage at Queen's Bay = 1752.76

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Kootenay Lake Board of Control

HISTORICAL BACKGROUND

- 1929--West Kootenay Power (WKP) Applies to IJC to Build Granite Dam and Store 6 Feet of Water in Kootenay Lake.
- IJC denies WKP application.
- 1932--WKP Completes Corra Linn Dam.
- 1938--With consent of Idaho Farmers, IJC approves revised application by WKP.

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HISTORICAL BACKGROUND

- Principal Considerations of the 1938 Kootenay Lake Order that address local concerns.
  - Consider backwater effects in the United States (to assure fairness to Canada & U.S.).
  - Assure dam operation does not aggravate flooding during the spring snowmelt:
    - Increase hydraulic capacity at outlet (Grohman Narrows).
    - Require spring drawdown of Kootenay Lake.
    - Require flood reduction by a “lowering formula” for Kootenay Lake Elevation.

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Kootenay Lake Board of Control

HISTORICAL BACKGROUND

- Principal Considerations in 1938 Order (Cont.)
  - Limit Kootenay Lake levels during the fall harvest period.
  - Mitigate for increased pumping costs for Idaho farmers.

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LAKE ELEVATION

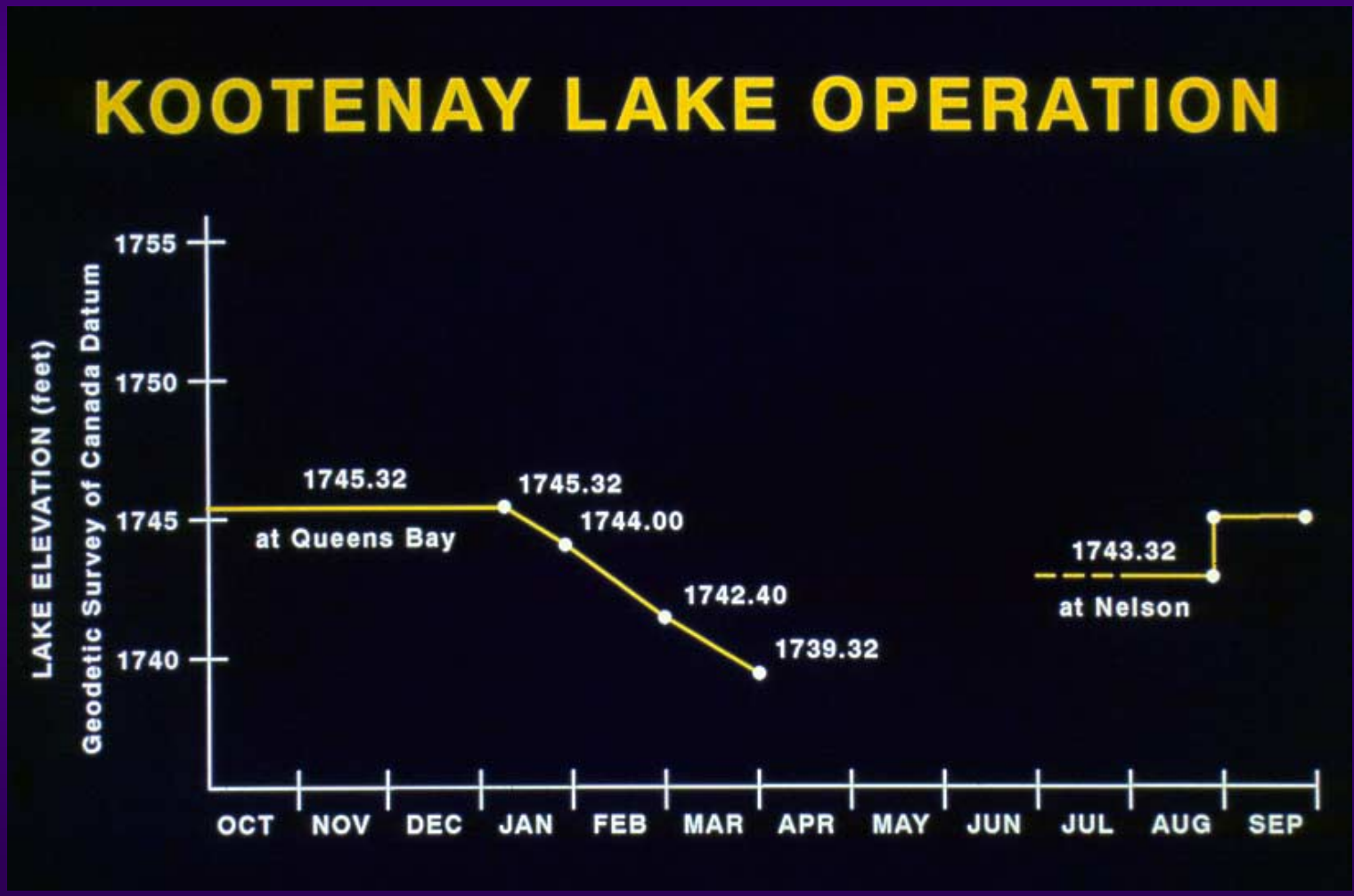
& RIVER FLOW

INFORMATION

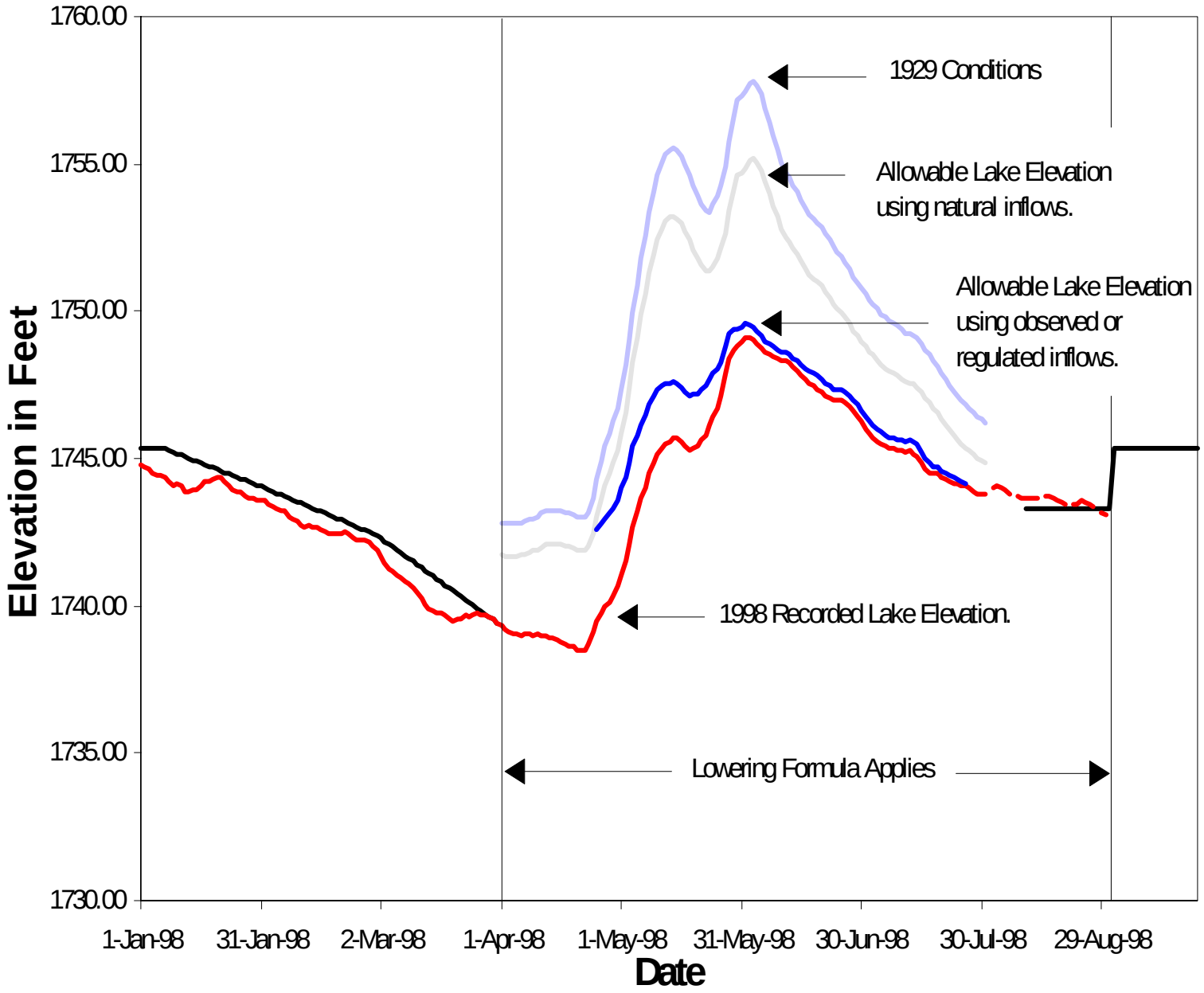
International Joint Commission

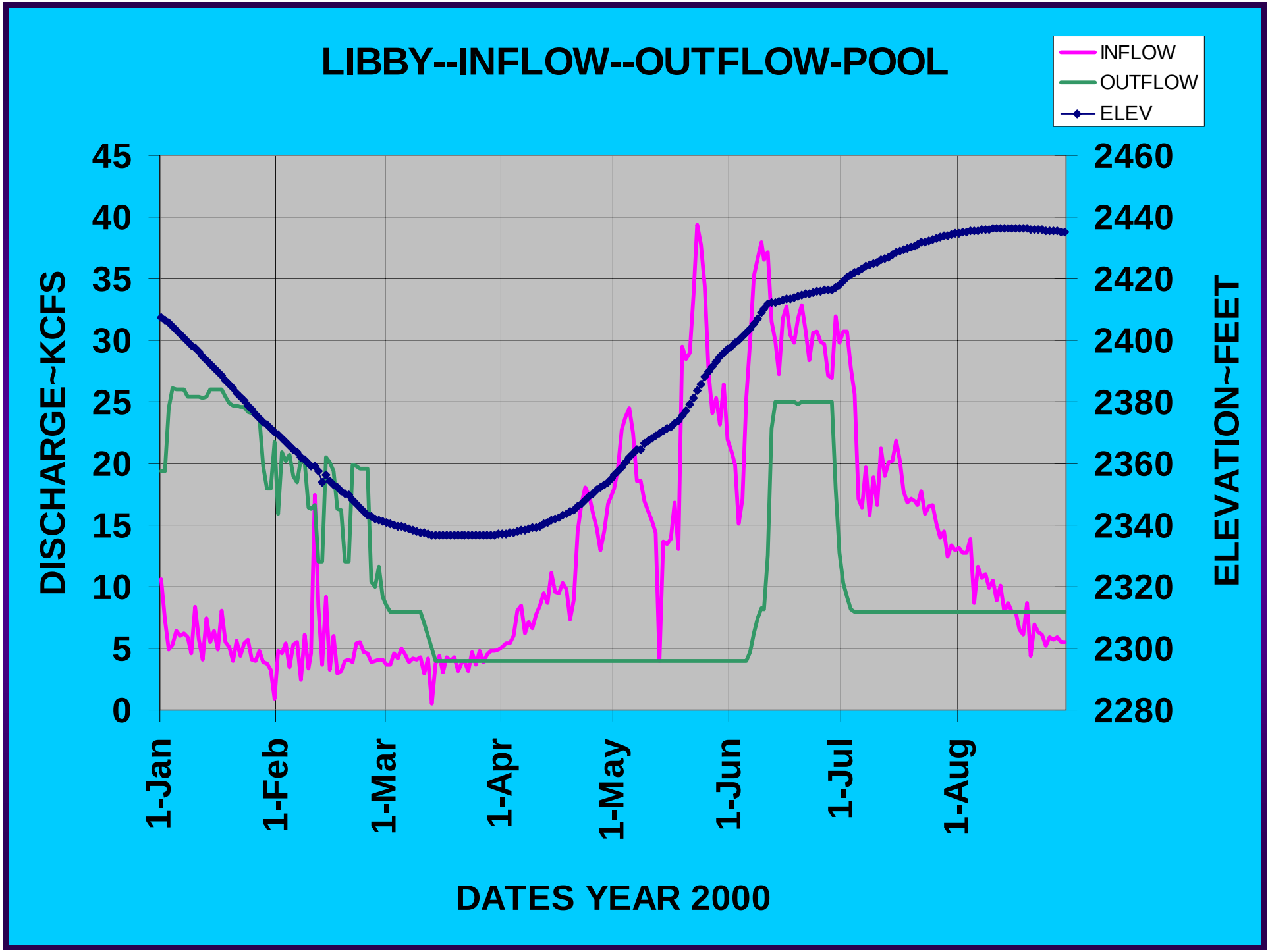
Kootenay Lake Board of Control

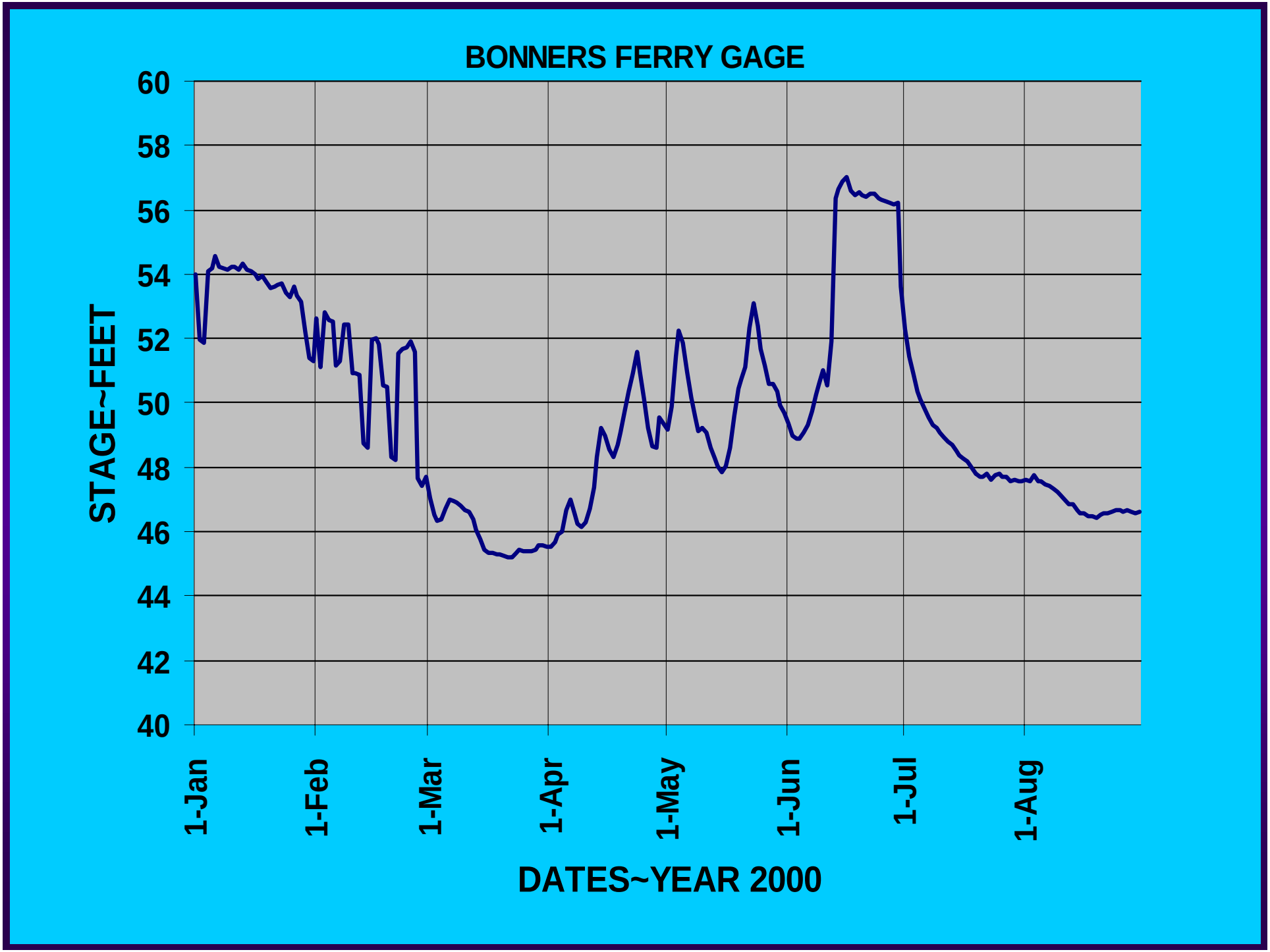
HISTORICAL BACKGROUND

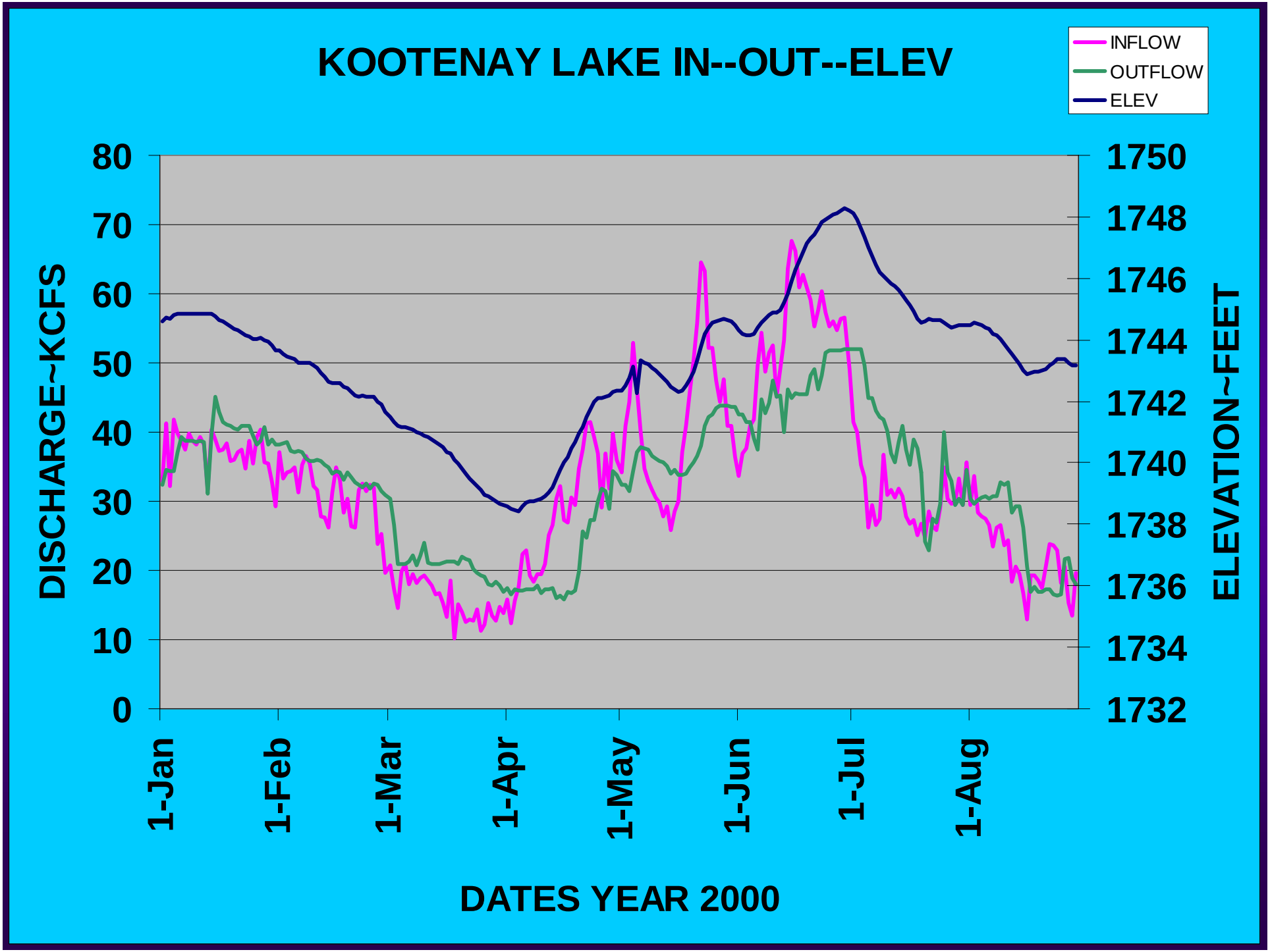


1998 KOOTENAY LAKE ELEVATIONS AT QUEENS BAY




LIBBY--INFLOW--OUTFLOW-POOL
INFLOW
OUTFLOW
ELEV
DISCHARGE~KCFS
ELEVATION~FEET
45
40
35
30
25
20
15
10
5
0
2460
2440
2420
2400
2380
2360
2340
2320
2300
2280
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
DATES YEAR 2000


BONNERS FERRY GAGE
STAGE~FEET
60
58
56
54
52
50
48
46
44
42
40
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
DATES~YEAR 2000


KOOTENAY LAKE IN--OUT--ELEV
INFLOW
OUTFLOW
ELEV
DISCHARGE~KCFS
ELEVATION~FEET
80
70
60
50
40
30
20
10
0
1750
1748
1746
1744
1742
1740
1738
1736
1734
1732
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
DATES YEAR 2000

E N D