

International Columbia River Board of Control

2011 Annual Report to the International Joint Commission



TABLE OF CONTENTS

COLUMBIA RIVER TREATY REVIEW	1
HYDROLOGIC CONDITIONS IN 2011	1
INTERNATIONAL COLUMBIA RIVER BOARD OF CONTROL MEMBERSHIP	4

Cover: Franklin D. Roosevelt Lake.

International Columbia River Board of Control

2011 Annual Report to the International Joint Commission

The Order of the International Joint Commission dated December 15, 1941, in the matter of the Application of the United States for Approval of the construction and operation of the Grand Coulee Dam and reservoir (Franklin D. Roosevelt Lake) provided for the creation of an engineering board to be known as the International Columbia River Board of Control. The Order provides that the Board shall conduct studies under the supervision of the Commission as to the effect of the operation of Grand Coulee Dam and Franklin D. Roosevelt Lake on water levels at and above the International Boundary, and shall submit a report to the Commission annually. The Board's studies are currently limited to the monitoring and reporting on the stage and discharges of the Lake and the Columbia River at the International Boundary.

COLUMBIA RIVER TREATY REVIEW

The 1964 Columbia River Treaty is an agreement between Canada and the United States for the cooperative development and operation of water resource regulation for the upper Columbia River. The Treaty has no specified termination date; however, either Canada or the United States can terminate the Treaty any time on or after September 16, 2024, with a minimum 10 years written notice. Because either country may give notice to terminate the Treaty, government agencies in Canada and the United States have begun the process to evaluate future options regarding the Treaty.

HYDROLOGIC CONDITIONS IN 2011

During calendar year 2011, the United States Geological Survey continued the collection of information concerning the stages and discharges of Franklin D. Roosevelt Lake and, in cooperation with the Water Survey of Canada, the stages and discharges of the Columbia River at the International Boundary, upstream from the lake.

The annual flow of the Columbia River at Grand Coulee Dam for calendar year 2011 totaled 95,040,000 acre-feet (117,230 cubic hectometers), about 22 percent above the mean annual volume for the 98-year period of record. The instantaneous maximum discharge of the Columbia River at the International Boundary was 271,000 cubic feet per second (7,670 cubic meters per second) on June 21, about 4.5 percent above the mean annual instantaneous maximum discharge for the 74-year period of record, and ranking 32 out of 74 discharge peaks. Daily mean discharge for the Columbia River at the International Boundary for 2007-11 is shown in figure 1A. Extremes of instantaneous stage recorded on the lake varied between elevations 1,217.53 feet (371.103 meters) on May 7 and 1,290.01 feet (393.195 meters) on August 2. Elevations are above mean sea level, Bureau of Reclamation datum, and adjustments of 1937. The stage at midnight on December 31, 2011, was 1,281.04 feet (390.461 meters). Water-level elevation in Franklin D. Roosevelt Lake for 2007-11 is shown in figure 1B.

The analyses of data collected indicate that backwater at the International Boundary varied during the year between 0.00 feet (0.00 meter) and 0.31 feet (0.094 meter). Backwater on December 31, 2011, was 0.00 feet (0.00 meter). Backwater that occurred at the International Boundary during 2007-11 is plotted in figure 1C. Backwater since the time of filling of Franklin D. Roosevelt Lake in June 1942 to December 31, 2006, is plotted on the charts submitted with previous annual reports.

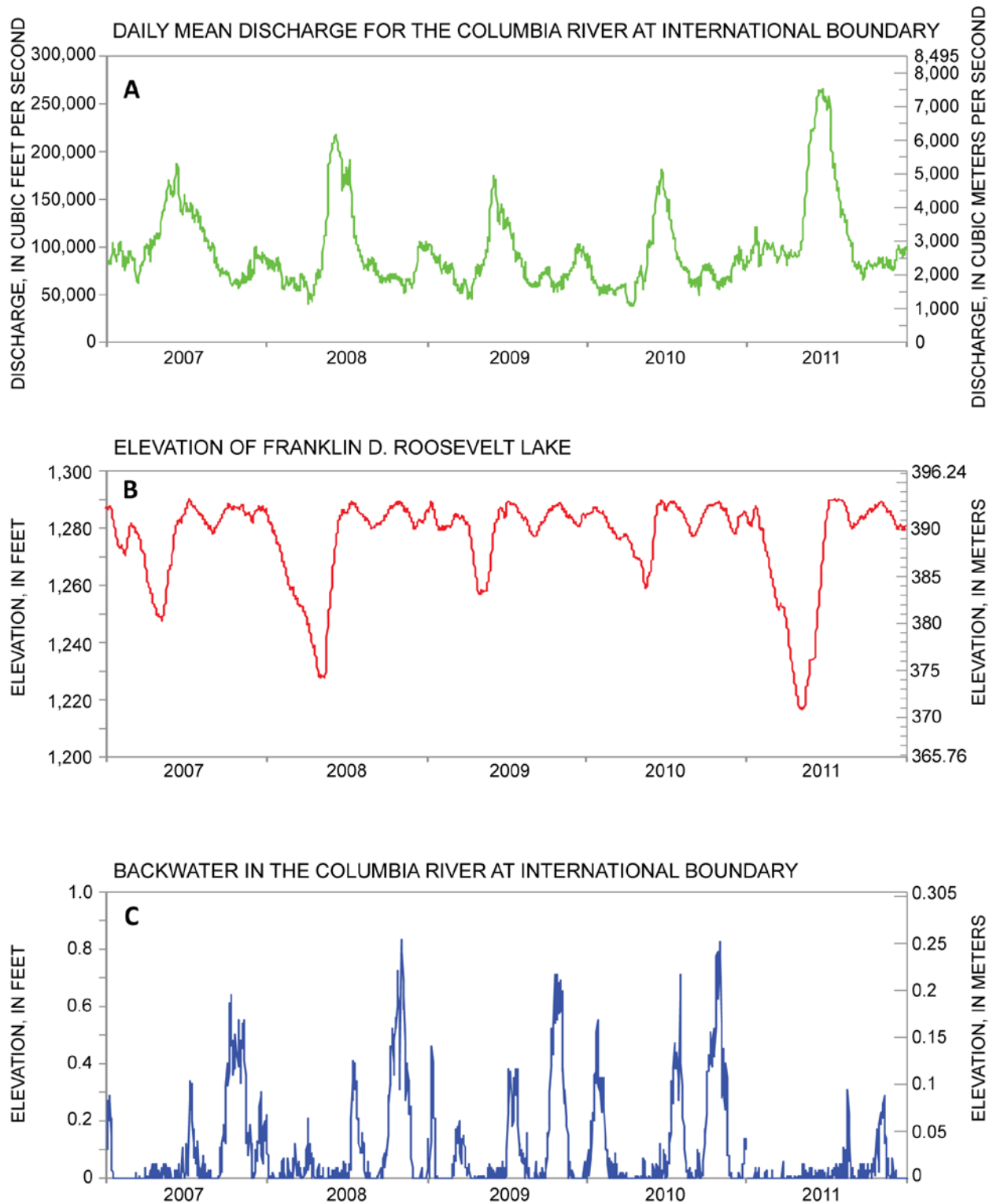


Figure 1. Hydrographs of A) daily-mean discharge for the Columbia River at the International Boundary, B) elevation of Franklin D. Roosevelt Lake, and C) backwater in the Columbia River at the International Boundary, 2007-11.

INTERNATIONAL COLUMBIA RIVER BOARD OF CONTROL MEMBERSHIP

 Canadian Membership	 U.S. Membership
<p>Kirk Johnstone Chair, Canadian Section Chief, Pacific Prediction Centre Meteorological Service of Canada Environment Canada 201 – 401 Burrard Street Vancouver, British Columbia V6C 3S5 Phone: (604) 664-9120 Fax: (604) 664-9004 Email: Kirk.Johnstone@ec.gc.ca</p>	<p>Dr. Cindi Barton Chair, United States Section Center Director USGS Washington Water Science Center U.S. Geological Survey 934 Broadway, Suite 300 Tacoma, Washington 98402-4300 Phone: (253) 552-1602 Fax: (253) 552-1581 Email: cbarton@usgs.gov</p>
Secretaries	
<p>Daniel Millar (term ended Dec. 2011) Secretary, Canadian Section Water Issues Environment Canada 201 - 401 Burrard Street Vancouver, British Columbia V6C 3S5 Phone: (604) 664-9345 Fax: (604) 713-9527 Email: Daniel.Millar@ec.gc.ca</p>	<p>Robert Kimbrough Secretary, U.S. Section Assistant Center Director for Hydrologic Data USGS Washington Water Science Center U.S. Geological Survey 934 Broadway, Suite 300 Tacoma, Washington 98402-4300 Phone: (253) 552-1608 Fax: (253) 552-1581 Email: rakimbro@usgs.gov</p>