

COLUMBIA RIVER MAIN STEM

12436000 FRANKLIN D. ROOSEVELT LAKE AT GRAND COULEE DAM, WA

LOCATION.--Lat 47°57'20", long 118°59'02", near center of sec.1, T.28 N., R.30 E., Grant County, Hydrologic Unit 17020001, in block 12 of Grand Coulee Dam on Columbia River, and at mile 596.6.

DRAINAGE AREA.--74,700 mi², approximately.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1943, published as Columbia River Reservoir at Grand Coulee Dam.

REVISED RECORDS.--WSP 1286: 1942, 1945(M). WSP 1316: 1942 (May monthend contents). WSP 1933: Drainage area. WDR WA-73-1: 1965, 1967. WDR WA-75-1: 1974 monthend contents.

GAGE.--U.S. Geological Survey water-stage recorder. Datum of gage is NGVD of 1929, adjustment of 1937 (Bureau of Reclamation datum), or 1.425 ft above NGVD of 1929 (levels by Bureau of Reclamation). Prior to Apr. 24, 1942, nonrecording gage at site 2,000 ft upstream at same datum.

REMARKS.--Reservoir is formed by concrete dam; construction of dam began in 1934; completed in 1941; storage began early in construction period. Capacity, 5,022,000 acre-ft between elevations 1,208 ft, proposed lower limit of operation, and 1,288 ft, top of gates. Capacity increased to 5,185,000 acre-ft by use of 2-ft flashboards installed after high-water period each year beginning August 1961. Storage below 1,208 ft, 4,209,000 acre-ft. Figures given herein represent total contents. Water is used for power generation and irrigation. Flow is regulated by nine major reservoirs and numerous smaller reservoirs and powerplants. Diversion by Feeder Canal (station 12435500) for irrigation of about 600,000 acres in the United States plus additional diversions in Canada for irrigation of about 66,500 acres. Maximum and minimum midnight contents were published as EXTREMES FOR CURRENT YEAR for 1997 to 2001.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents recorded, 9,586,000 acre-ft July 17, 1942, June 3, 1945, elevation, 1,290.3 ft; maximum elevation, 1,290.36 ft Aug. 6, 1976; minimum contents observed, 16,200 acre-ft Aug. 29, 1938, elevation, 956.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,387,000 acre-ft July 9, elevation, 1,289.91 ft; minimum contents, 5,875,000 acre-ft May 19, elevation, 1,239.87 ft.

Capacity table dated October 24, 1975 (elevation, in feet, and contents, in acre-ft)
(Prepared by U.S. Geological Survey from data furnished by Bureau of Reclamation)

1,210.0	4,301,000	1,270.0	7,864,000
1,230.0	5,309,000	1,291.0	9,477,000
1,250.0	6,502,000		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1283.45	1286.62	1283.74	1283.96	1271.45	1256.83	1262.50	1244.69	1264.33	1287.35	1286.41	1281.97
2	1283.53	1286.90	1284.82	1283.30	1271.28	1256.81	1262.23	1244.35	1266.69	1286.92	1285.62	1282.65
3	1283.70	1287.11	1284.87	1282.32	1271.46	1257.67	1262.17	1244.58	1268.35	1286.50	1285.40	1282.88
4	1283.98	1287.34	1285.08	1281.37	1270.53	1257.62	1262.21	1244.32	1269.21	1286.65	1285.59	1283.37
5	1284.18	1287.10	1285.13	1280.88	1269.49	1257.80	1261.90	1244.62	1270.03	1287.13	1285.31	1283.72
6	1284.60	1286.87	1285.51	1281.14	1268.72	1257.56	1262.40	1243.75	1271.17	1287.25	1284.96	1284.08
7	1285.19	1286.59	1285.95	1280.69	1268.29	1256.93	1263.04	1243.09	1271.65	1288.69	1284.16	1284.51
8	1285.33	1286.42	1286.67	1280.65	1267.90	1256.24	1263.68	1242.78	1272.57	1289.45	1283.12	1285.05
9	1285.33	1286.40	1287.35	1281.30	1267.37	1256.16	1264.16	1242.32	1273.62	1289.26	1282.32	1284.88
10	1285.23	1286.53	1286.84	1282.06	1266.68	1256.49	1264.18	1242.05	1274.11	1289.05	1282.09	1285.23
11	1285.54	1286.78	1286.75	1282.35	1265.48	1255.84	1262.84	1242.29	1275.20	1289.00	1282.33	1285.87
12	1285.39	1286.71	1286.25	1282.97	1264.64	1255.47	1261.93	1242.64	1276.08	1288.38	1282.02	1285.87
13	1285.88	1286.78	1286.24	1283.74	1263.52	1255.63	1261.78	1241.75	1277.58	1288.14	1281.51	1286.01
14	1286.23	1286.58	1286.27	1283.11	1262.98	1255.87	1261.53	1241.42	1278.78	1289.23	1281.19	1287.20
15	1286.06	1286.40	1286.82	1282.33	1261.44	1256.05	1260.88	1241.07	1280.34	1289.07	1280.89	1287.61
16	1285.73	1286.17	1287.40	1281.83	1260.85	1256.08	1260.12	1240.37	1282.18	1288.88	1281.13	1287.77
17	1285.63	1286.29	1287.54	1281.17	1260.72	1257.23	1258.83	1240.16	1283.15	1288.93	1281.66	1288.16
18	1285.50	1286.91	1287.24	1280.57	1260.12	1256.91	1257.36	1239.93	1284.00	1288.82	1281.98	1287.89
19	1285.23	1287.04	1287.20	1280.34	1259.21	1256.98	1256.18	1240.25	1283.83	1288.39	1281.75	1287.85
20	1285.64	1286.77	1286.49	1280.71	1258.67	1256.47	1254.96	1240.42	1283.35	1288.30	1281.54	1287.51
21	1285.81	1286.32	1285.96	1279.97	1258.30	1256.53	1253.46	1241.29	1283.21	1288.64	1280.81	1287.44
22	1285.64	1286.37	1285.85	1278.92	1258.34	1257.27	1252.22	1242.63	1283.79	1288.05	1280.14	1287.76
23	1285.59	1286.23	1286.21	1278.21	1258.27	1258.07	1250.98	1244.18	1285.15	1287.64	1279.89	1287.41
24	1285.49	1286.01	1285.78	1277.39	1258.53	1258.85	1249.91	1246.14	1284.99	1287.50	1279.98	1286.85
25	1285.48	1285.72	1286.11	1276.58	1258.04	1259.41	1248.61	1248.43	1284.84	1287.37	1280.66	1286.52
26	1285.56	1285.16	1285.06	1276.38	1257.57	1259.55	1247.79	1250.01	1285.22	1287.63	1280.39	1286.49
27	1285.99	1284.55	1284.53	1276.51	1257.08	1260.05	1247.69	1251.12	1285.30	1288.22	1280.45	1287.05
28	1286.11	1284.01	1284.09	1275.40	1257.01	1260.51	1247.54	1252.71	1285.05	1288.57	1280.14	1287.14
29	1285.84	1283.30	1284.18	1274.27	---	1260.71	1246.37	1255.13	1286.03	1288.12	1280.08	1287.70
30	1285.78	1283.28	1284.70	1273.07	---	1261.58	1244.89	1257.92	1287.15	1287.39	1279.93	1287.84
31	1286.34	---	1284.14	1272.12	---	1262.21	---	1260.81	---	1286.98	1280.39	---
MAX	1286.34	1287.34	1287.54	1283.96	1271.46	1262.21	1264.18	1260.81	1287.15	1289.45	1286.41	1288.16
MIN	1283.45	1283.28	1283.74	1272.12	1257.01	1255.47	1244.89	1239.93	1264.33	1286.50	1279.89	1281.97
(+)	9098000	8856000	8923000	8018000	6961000	7315000	6180000	7218000	9163000	9149000	8633000	9218000
(+)	+246000	-242000	+67000	-905000	-1057000	+354000	-1135000	+1038000	+1945000	-14000	-516000	+585000

CAL YR 2001 MAX 1287.54 MIN 1216.94 AC-FT+ +1221000
WTR YR 2002 MAX 1289.45 MIN 1239.93 AC-FT+ +366000

† Total Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.