

SKAGIT RIVER BASIN

12175000 ROSS RESERVOIR NEAR NEWHALEM, WA  
(International gaging station)

LOCATION.--Lat 48°43'58", long 121°04'02", in SE 1/4 sec.35, T.38 N., R.13 E., Whatcom County, Hydrologic Unit 17110005, Ross Lake National Recreation Area, at Ross Dam on Skagit River, 1.0 mi downstream from Ruby Creek, 9.1 mi northeast of Newhalem, and at mile 105.2.

DRAINAGE AREA.--999 mi<sup>2</sup>, of which 400 mi<sup>2</sup> is in Canada.

PERIOD OF RECORD.--March 1940 to current year (monthend elevations and contents only prior to October 1946). Prior to October 1945, published as "Ruby Reservoir near Newhalem."

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is City of Seattle Ross Dam datum; 1.79 ft above NGVD of 1929, U.S. Coast and Geodetic Survey datum; and 0.88 ft above NGVD of 1929, Geodetic Survey of Canada 1959 datum (by water level transfer of elevation from the international boundary). Prior to Sept. 24, 1940, nonrecording gage on west shore at site upstream from Ross Dam at same datum. June 29, 1943i, to Apr. 29, 1948, nonrecording gage on right bank at site 500 ft upstream from dam at present datum.

REMARKS.--Reservoir is formed by concrete-arch dam completed to elevation 1,615 ft in 1949, storage began Mar. 11, 1940. Starting about July 1, 1967, taintor gates were extended to elevation 1,602.50 ft. Usable storage, 1,052,300 acre-ft between elevations 1,475 ft, lower limit of operation, and 1,602.5 ft, top of taintor gates. An additional 95,000 acre-ft of storage may be obtained during major floods by surcharge of the reservoir to a maximum elevation of 1,610.5 ft. Dead storage below elevation 1,250 ft, 1,175 acre-ft. Water used by City of Seattle for power development. Figures given herein represent total contents. U.S. Geological Survey satellite telemeter at station.

COOPERATION.--Capacity table furnished by City of Seattle. This station is maintained by the United States under agreement with Canada.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,443,460 acre-ft July 20, 1981, elevation, 1,603.23 ft; minimum contents observed since dam was completed in 1949, 51,760 acre-ft Apr. 5, 1952, elevation, 1,348.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,433,917 acre-ft July. 31, elevation, 1,602.43 ft; minimum contents, 536,755 acre-ft Apr. 11, elevation, 1,504.61 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)  
(Based on 25-foot contour intervals furnished by city of Seattle in 1943)

1,490	454,480	1,550	888,320
1,500	509,240	1,575	1,130,200
1,525	678,950	1,603	1,440,700

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	1577.81	1571.38	1578.88	1574.59	1563.18	1544.12	1510.49	1515.35	1543.93	1599.18	1602.25	1601.13
2	1577.50	1571.41	1578.74	1574.21	1562.15	1542.87	1509.67	1516.15	1546.24	1599.16	1602.24	1601.13
3	1577.22	1571.30	1578.36	1573.54	1560.98	1542.08	1508.79	1517.39	1548.93	1599.42	1602.17	1601.05
4	1576.95	1571.41	1578.07	1572.54	1559.88	1540.92	1507.95	1518.32	1551.47	1599.66	1602.24	1600.94
5	1576.66	1571.29	1577.73	1571.59	1558.73	1539.90	1507.10	1519.00	1554.25	1599.65	1602.11	1600.80
6	1576.45	1571.02	1577.56	1571.00	1557.69	1538.61	1506.73	1518.71	1557.07	1599.73	1602.04	1600.47
7	1576.17	1570.92	1577.24	1573.08	1556.87	1537.49	1506.45	1518.36	1558.89	1600.02	1602.03	1600.45
8	1575.78	1570.73	1577.13	1576.76	1556.21	1536.23	1505.98	1517.84	1559.91	1601.08	1602.01	1600.30
9	1575.44	1570.55	1576.78	1578.21	1555.30	1535.05	1505.36	1517.65	1560.87	1601.63	1601.96	1600.15
10	1575.08	1570.44	1576.43	1578.80	1554.26	1533.90	1504.93	1516.78	1562.04	1602.10	1602.00	1599.99
11	1574.86	1570.32	1575.98	1578.89	1553.45	1533.26	1504.67	1515.93	1563.58	1602.19	1602.02	1599.65
12	1574.57	1570.05	1575.43	1578.82	1552.62	1532.27	1505.42	1515.23	1565.59	1601.97	1602.03	1599.38
13	1574.33	1570.07	1575.28	1578.69	1551.64	1531.30	1507.38	1514.94	1568.20	1601.63	1601.98	1599.08
14	1574.16	1571.51	1575.39	1578.32	1550.88	1530.05	1511.29	1515.45	1571.43	1601.47	1601.96	1598.91
15	1573.85	1573.66	1575.13	1577.66	1549.89	1528.99	1513.82	1515.72	1574.70	1601.47	1601.91	1598.83
16	1573.67	1575.28	1575.52	1577.01	1549.03	1527.96	1515.37	1515.87	1577.59	1601.35	1601.83	1598.75
17	1573.44	1576.09	1576.17	1576.39	1548.12	1526.87	1516.65	1516.04	1579.86	1601.46	1601.67	1598.70
18	1573.18	1576.72	1576.37	1575.61	1547.17	1525.58	1517.06	1516.46	1581.82	1601.80	1601.63	1598.62
19	1573.03	1577.27	1576.51	1574.86	1546.20	1524.78	1517.32	1517.34	1583.00	1601.94	1601.72	1598.50
20	1572.86	1577.95	1576.52	1574.09	1545.31	1523.45	1517.19	1518.64	1583.91	1602.02	1601.50	1598.45
21	1572.69	1578.49	1576.50	1573.25	1545.05	1522.24	1517.34	1520.74	1585.11	1602.03	1601.43	1598.41
22	1572.58	1578.96	1576.42	1572.45	1547.08	1521.12	1517.21	1522.45	1586.65	1601.96	1601.29	1598.30
23	1572.48	1579.29	1576.29	1571.61	1547.65	1520.20	1517.44	1523.74	1588.32	1602.04	1601.24	1598.20
24	1572.28	1579.50	1576.15	1570.88	1547.75	1519.14	1517.41	1524.72	1589.75	1602.22	1601.24	1598.10
25	1572.08	1579.61	1576.19	1570.09	1547.29	1518.27	1517.05	1525.61	1591.03	1602.30	1601.44	1597.99
26	1571.77	1579.52	1575.72	1569.28	1546.56	1517.33	1516.53	1526.93	1592.74	1602.36	1601.49	1597.84
27	1571.81	1579.40	1575.50	1568.23	1545.62	1516.15	1515.81	1528.39	1594.63	1602.20	1601.42	1597.57
28	1571.73	1579.21	1575.31	1567.26	1544.83	1515.02	1515.39	1531.22	1596.38	1602.08	1601.37	1597.50
29	1571.47	1579.14	1575.18	1566.25	---	1513.45	1514.96	1534.98	1598.20	1601.94	1601.33	1597.39
30	1571.21	1578.95	1574.91	1565.27	---	1512.55	1515.12	1538.54	1599.08	1602.21	1601.33	1597.29
31	1571.34	---	1574.69	1564.29	---	1511.66	---	1541.53	---	1602.26	1601.18	---
MAX	1577.81	1579.61	1578.88	1578.89	1563.18	1544.12	1517.44	1541.53	1599.08	1602.36	1602.25	1601.13
MIN	1571.21	1570.05	1574.69	1564.29	1544.83	1511.66	1504.67	1514.94	1543.93	1599.16	1601.18	1597.29
(+)	1092468	1171670	1126976	1022042	842628	582218	606077	814028	1394628	1431894	1419124	1373935
(+)	-70722	+79202	-44694	-104934	-179414	-260410	+23859	+207951	+580600	+37266	-12770	-45189

CAL YR 2001 MAX 1591.01 MIN 1527.56 AC-FT+ +170540  
WTR YR 2002 MAX 1602.36 MIN 1504.67 AC-FT+ +210745

† Contents, in acre-feet, at 2400, on last day of month.  
‡ Change in contents, in acre-feet.