RED RIVER OF THE NORTH BASIN

05073500 UPPER RED LAKE AT WASKISH, MN

LOCATION.--Lat 48°10'32", long 94°30'51", in NW¹/4SW¹/4NE¹/4NW¹/4 sec. 8, T.154 N., R. 30 W., Beltrami County, Hydrologic Unit 09020302, on east side of Upper Red Lake, near mouth of Tamarack River, on Minnesota Department of Natural Resources property, 500 feet west of State Highway 72 bridge on north edge of Waskish.

PERIOD OF RECORD.-- October 1921 to September 1933, May 1940 to July 1946, October 1995 to current year.

GAGE.-- Water-stage recorder. Datum of gage is 1,100.00 ft, adjustment of 1912. October 1921 to September 1929, nonrecording gage at datum 1170.00 ft (no winter readings). April 1930 to September 1933, nonrecording gage at datum 1100.00 ft (some winter readings). May 1940 to July 1946, nonrecording gage at datum 1170.00 ft.

REMARKS.-- Water level subject to fluctuation caused by seiches.

EXTREMES FOR PERIOD OF RECORD.-- Maximum elevation, 78.34 ft, June 28, 1943; minimum recorded, 72.10 ft, Oct. 17, 1932.

EXTREMES FOR CURRENT YEAR.-- Maximum elevation, 76.27 ft, July 5, maximum daily, 75.80 ft, Aug. 9; minimum elevation, 73.47 ft, Oct. 17, minimum daily, 73.92 ft., Oct. 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

| DAY JUL | OCT AUG | NOV SEP | DEC | JAN | FEB | MAR | APR | MAY | JUN |
|---------------------|----------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1 75.23 | 74.13 75.71 | 74.47 75.13 | 74.42 | 74.37 | 74.26 | 74.18 | 74.10 | 75.00 | 75.24 |
| 75.25 2 75.25 | 74.47 75.54 | 74.33 74.99 | 74.41 | 74.38 | 74.27 | 74.15 | 74.13 | 74.99 | 75.22 |
| 75.25 3 75.36 | 74.41 75.56 | 74.26 75.00 | 74.40 | 74.36 | 74.26 | 74.14 | 74.16 | 75.06 | 75.20 |
| 4 | 74.37 | 74.08 | 74.38 | 74.35 | 74.27 | 74.18 | 74.19 | 75.12 | 75.20 |
| 75.63 5 | 75.44 74.39 | 75.05 74.21 | 74.39 | 74.38 | 74.27 | 74.18 | 74.23 | 75.18 | 75.17 |
| 75.70 | 75.55 | 75.18 | | | | | | | |
| 6 75.50 | 74.38 75.56 | 74.54 75.01 | 74.39 | 74.36 | 74.27 | 74.18 | 74.40 | 75.05 | 75.18 |
| 7 75.47 | 74.26 75.64 | 74.59 74.94 | 74.40 | 74.34 | 74.26 | 74.16 | 74.48 | 75.06 | 75.10 |

| 8 | 74.37 | 74.46 | 74.40 | 74.33 | 74.25 | 74.14 | 74.48 | 75.37 | 75.16 |
|-------------|----------------|----------------|---------|----------------|-----------|---------|-----------|-------|-------|
| 75.47 | 75.56 | 75.04 | | | | | | | |
| 9 | 74.20 | 74.34 | 74.38 | 74.34 | 74.24 | 74.17 | 74.50 | 75.14 | 75.17 |
| 75.51 10 | 75.80 74.29 | 74.97 74.27 | 74 20 | 71 26 | 74 24 | 7/ 15 | 74 50 | 7F 10 | 75.15 |
| 75.50 | 74.29 | 74.27 | 74.38 | 74.36 | 74.24 | 74.15 | 74.52 | 75.18 | /5.15 |
| 73.30 | 73.17 | 7 1 • 2 ± | | | | | | | |
| 11 | 74.43 | 74.26 | 74.36 | 74.36 | 74.24 | 74.15 | 74.53 | 75.28 | 75.12 |
| 75.51 | 75.53 | 74.94 | | | | | | | |
| 12 | 74.25 | 74.27 | 74.40 | 74.34 | 74.23 | 74.14 | 74.56 | 75.07 | 75.09 |
| 75.51 | 75.46 | 74.85 | | | | | | | |
| 13 | 74.24 | 74.27 | 74.41 | 74.33 | 74.22 | 74.14 | 74.60 | 75.15 | 75.04 |
| 75.64 14 | 75.32 | 74.94 | 74 20 | 74 20 | 74 24 | 7/ 17 | 74 60 | 75 27 | 75 06 |
| 75.68 | 73.92 75.29 | 74.24 74.87 | 74.39 | 74.32 | 74.24 | 74.17 | 74.60 | 75.27 | 75.06 |
| 15 | 74.37 | 74.25 | 74.40 | 74.33 | 74.21 | 74.15 | 74.62 | 75.24 | 75.33 |
| 75.71 | 75.18 | 74.69 | | | | | | | |
| | | | | | | | | | |
| 16 | 74.22 | 74.27 | 74.38 | 74.33 | 74.21 | 74.12 | 74.62 | 75.19 | 74.98 |
| 75.74 | 75.00 | 74.93 | | | | | | | |
| 17 | 74.09 | 74.39 | 74.41 | 74.33 | 74.21 | 74.14 | 74.63 | 75.14 | |
| 75.71 18 | 75.18 74.84 | 75.31 74.36 | 74.42 | 74 00 | 74.22 | 74 10 | 74 67 | 75.02 | 74 07 |
| 75.46 | 74.84 | 74.36 | 74.42 | 74.29 | 74.22 | 74.12 | 74.67 | 75.02 | 74.97 |
| 19 | 74.26 | 74.34 | 74.41 | 74.30 | 74.20 | 74.12 | 74.70 | 75.28 | 74.98 |
| 75.60 | 75.15 | 74.89 | | | | | | | |
| 20 | 74.17 | 74.33 | 74.38 | 74.28 | 74.20 | 74.10 | 74.72 | 75.24 | 75.14 |
| 75.72 | 75.23 | 74.94 | | | | | | | |
| | | | | | | | | | |
| 21 | 74.36 | 74.37 | 74.41 | 74.26 | 74.19 | 74.12 | 74.76 | 75.15 | 75.11 |
| 75.55 | 75.23 | 75.11 | 74 40 | 74 00 | 74 10 | 74 10 | 74 70 | 75 15 | 75 00 |
| 22 75.60 | 74.34 75.19 | 74.35 74.96 | 74.40 | 74.29 | 74.19 | 74.10 | 74.79 | 75.15 | 75.00 |
| 23 | 74.20 | 74.36 | 74.40 | 74.28 | 74.19 | 74.08 | 74.82 | 75.23 | 74.98 |
| 75.65 | 75.20 | 74.80 | | | | | | | |
| | | | | | | | | | |
| 24 | 74.27 | 74.36 | 74.41 | 74.30 | 74.17 | 74.07 | 74.87 | 75.15 | 75.08 |
| 75.65 | 75.22 | 75.21 | 74 40 | 74 20 | 74 16 | 7/11 | 74 00 | 75 00 | 75 45 |
| 25 75.58 | 74.17 75.26 | 74.36 74.78 | 74.40 | 74.30 | 74.16 | 74.11 | 74.88 | 75.02 | 75.45 |
| 73.30 | 73.20 | 74.70 | | | | | | | |
| 26 | 74.08 | 74.36 | 74.39 | 74.28 | 74.17 | 74.09 | 74.94 | 75.14 | 75.33 |
| 75.73 | 75.25 | 74.75 | , 1, 0, | , 1, 10 | , _ , _ , | , 1, 0, | , _ , _ , | 70111 | 70.00 |
| 27 | 74.66 | 74.34 | 74.38 | 74.29 | 74.14 | 74.07 | 74.94 | 75.22 | 75.23 |
| 75.69 | 75.15 | 74.80 | | | | | | | |
| 28 | 74.44 | 74.34 | 74.39 | 74.29 | 74.13 | 74.10 | 74.95 | 75.22 | 75.28 |
| 75.61 | 75.08 | 75.48 | 74 20 | 74 07 | | 74.00 | 75 00 | 75 04 | 75 22 |
| 29 75.60 | 74.13 75.12 | 74.33 75.29 | 74.38 | 74.27 | | 74.09 | 75.20 | 75.24 | 75.33 |
| 30 | 75.12 | 74.41 | 74.37 | 74.27 | | 74.10 | 74.95 | 75.26 | 75.30 |
| 75.63 | 75.18 | 74.75 | | = - - · | | | | | |
| 31 | 74.97 | | 74.36 | 74.29 | | 74.07 | | 75.25 | |
| 75.75 | 75.15 | | | | | | | | |
| | | | | | | | | | |
| MEAN | 74.35 | 74.34 | 74.39 | 74.32 | 74.22 | 74.13 | 74.62 | 75.16 | 75.16 |
| | | | | | | | | | |

| 75.58 | 75.34 | 74.98 | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MAX | 75.10 | 74.59 | 74.42 | 74.38 | 74.27 | 74.18 | 75.20 | 75.37 | 75.45 |
| 75.75 | 75.80 | 75.48 | | | | | | | |
| MIN | 73.92 | 74.08 | 74.36 | 74.26 | 74.13 | 74.07 | 74.10 | 74.99 | 74.97 |
| 75.23 | 75.00 | 74.69 | | | | | | | |