LOCATION.--Lat $48^{\circ} 54^{\prime} 1^{\prime \prime \prime}$, long $95^{\circ} 18^{\prime} 57^{\prime \prime}$, in $\mathrm{SW}^{1} / 4 \mathrm{SE}^{1 / 4} \mathrm{sec} .29, \mathrm{~T} .163 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, Roseau County, Hydrologic Unit 09030009 , on left bank of Warroad River in Warroad, 300 ft downstream from Canadian National railroad bridge, 1000 ft downstream from bridge on State Highway 11, and 4000 ft upstream from mouth of Warroad River.

DRAINAGE AREA. $--27,200 \mathrm{mi}^{2}$.
PERIOD OF RECORD.--April to September 1978, month-end elevations only. October 1978 to September 1985 , daily-mean elevations; October 1985 to December 1994 and October 1997 to current year, daily-mean elevations (gage heights). Records collected prior to April 1978 are in reports of the Water Survey of Canada.

GAGE.--Water-stage recorder. Datum at gage is $1,000.00 \mathrm{ft}$ above sea level (Lake of the Woods datum).
REMARKS.--Records good. Runoff conditions of the Warroad River can affect water levels at this station. Water level subject to fluctuation caused by changes in direction and velocity of wind and resulting seiches.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 62.55 ft , June 27, 2001; maximum daily, 62.21 ft, June 27 , 2001 ; minimum gage height recorded, 55.94 ft, Sept. 4, 1980; minimum daily recorded, 56.52 ft, Apr. 15, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 62.55 ft , June 27; maximum daily, 62.21 ft , June 27 ; minimum gage height, 58.51 ft, Apr. 2; minimum daily, 58.55 ft, Apr. 2,3.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 59.93 | 60.02 | 60.37 | 59.85 | 59.37 | 58.94 | 58.58 | 60.22 | 61.69 | 62.05 | 60.86 | 60.76 |
| 2 | 59.91 | 59.67 | 60.30 | 59.83 | 59.38 | 58.90 | 58.55 | 60.15 | 61.82 | 61.86 | 61.11 | 60.57 |
| 3 | 59.64 | 59.72 | 60.23 | 59.82 | 59.38 | 58.93 | 58.55 | 60.36 | 61.77 | 61.88 | 61.16 | 60.62 |
| 4 | 59.75 | 59.95 | 60.20 | 59.80 | 59.35 | 58.90 | 58.57 | 60.41 | 61.81 | 61.90 | 61.19 | 60.59 |
| 5 | 59.87 | 60.01 | 60.22 | 59.78 | 59.32 | 58.88 | 58.58 | 60.44 | 61.82 | 61.90 | 61.25 | 60.56 |
| 6 | 59.86 | 60.23 | 60.23 | 59.80 | 59.29 | 58.85 | 58.59 | 60.45 | 61.79 | 61.77 | 61.27 | 60.50 |
| 7 | 59.87 | 60.48 | 60.22 | 59.77 | 59.29 | 58.81 | 58.67 | 60.24 | 61.78 | 61.75 | 61.28 | 61.05 |
| 8 | 59.66 | 60.19 | 60.18 | 59.76 | 59.28 | 58.81 | 58.74 | 60.30 | 61.79 | 61.73 | 61.32 | 60.91 |
| 9 | 59.66 | 60.27 | 60.17 | 59.75 | 59.25 | 58.81 | 58.80 | 60.54 | 61.81 | 61.70 | 61.24 | 60.66 |
| 10 | 59.76 | 60.40 | 60.14 | 59.73 | 59.25 | 58.78 | 58.84 | 60.55 | 61.87 | 61.72 | 61.23 | 60.51 |
| 11 | 59.76 | 60.42 | 60.12 | 59.74 | 59.26 | 58.79 | 58.89 | 60.54 | 61.77 | 61.63 | 61.16 | 60.56 |
| 12 | 59.77 | 60.70 | 60.09 | 59.71 | 59.22 | 58.78 | 58.98 | 60.49 | 61.83 | 61.54 | 61.38 | 60.58 |
| 13 | 59.82 | 60.70 | 60.08 | 59.72 | 59.18 | 58.74 | 59.12 | 60.57 | 62.01 | 61.46 | 61.27 | 60.55 |
| 14 | 60.00 | 60.40 | 60.07 | 59.70 | 59.17 | 58.73 | 59.17 | 60.53 | 61.94 | 61.47 | 61.22 | 60.42 |
| 15 | 59.75 | 60.41 | 60.06 | 59.65 | 59.16 | 58.72 | 59.22 | 60.55 | 61.47 | 61.41 | 61.31 | 60.33 |
| 16 | 59.68 | 60.63 | 60.03 | 59.63 | 59.11 | 58.72 | 59.36 | 60.49 | 61.73 | 61.33 | 61.32 | 60.31 |
| 17 | 59.62 | 60.43 | 60.02 | 59.62 | 59.11 | 58.71 | 59.45 | 60.50 | 61.95 | 61.31 | 61.27 | 60.38 |
| 18 | 59.68 | 60.48 | 60.02 | 59.60 | 59.09 | 58.71 | 59.56 | 60.54 | 61.95 | 61.34 | 61.44 | 60.30 |
| 19 | 59.65 | 60.87 | 60.01 | 59.59 | 59.07 | 58.69 | 59.64 | 60.58 | 61.93 | 61.28 | 61.30 | 60.27 |
| 20 | 59.64 | 60.55 | 60.02 | 59.58 | 59.03 | 58.66 | 59.74 | 60.57 | 62.06 | 61.24 | 61.20 | 60.23 |
| 21 | 59.74 | 60.43 | 59.98 | 59.56 | 59.05 | 58.66 | 59.81 | 60.66 | 62.07 | 61.24 | 61.19 | 60.16 |
| 22 | 59.58 | 60.48 | 59.99 | 59.53 | 59.02 | 58.65 | 59.92 | 60.90 | 61.99 | 61.16 | 61.27 | 60.28 |
| 23 | 59.62 | 60.44 | 59.98 | 59.50 | 59.02 | 58.64 | 59.97 | 61.24 | 61.94 | 60.96 | 61.22 | 60.30 |
| 24 | 59.59 | 60.36 | 59.95 | 59.49 | 59.03 | 58.62 | 60.03 | 61.12 | 62.04 | 61.09 | 61.09 | 60.05 |
| 25 | 59.67 | 60.43 | 59.94 | 59.50 | 59.00 | 58.61 | 60.05 | 61.20 | 62.03 | 61.10 | 61.03 | 59.97 |
| 26 | 59.91 | 60.45 | 59.92 | 59.47 | 58.98 | 58.61 | 60.11 | 61.27 | 62.02 | 60.94 | 61.00 | 59.98 |
| 27 | 60.10 | 60.42 | 59.94 | 59.45 | 58.95 | 58.61 | 60.18 | 61.36 | 62.21 | 60.85 | 61.02 | 59.98 |
| 28 | 59.72 | 60.47 | 59.93 | 59.44 | 58.96 | 58.62 | 60.23 | 61.51 | 62.01 | 60.87 | 60.98 | 59.88 |
| 29 | 59.77 | 60.40 | 59.89 | 59.44 | --- | 58.61 | 60.07 | 61.57 | 62.02 | 60.81 | 60.81 | 59.74 |
| 30 | 59.77 | 60.38 | 59.88 | 59.40 | --- | 58.60 | 60.22 | 61.50 | 62.10 | 60.74 | 60.85 | 59.78 |
| 31 | 59.77 | --- | 59.86 | 59.37 | --- | 58.58 | --- | 61.50 | --- | 60.78 | 60.88 | --- |
| MEAN | 59.76 | 60.36 | 60.07 | 59.63 | 59.16 | 58.73 | 59.34 | 60.74 | 61.90 | 61.38 | 61.17 | 60.36 |
| MAX | 60.10 | 60.87 | 60.37 | 59.85 | 59.38 | 58.94 | 60.23 | 61.57 | 62.21 | 62.05 | 61.44 | 61.05 |
| MIN | 59.58 | 59.67 | 59.86 | 59.37 | 58.95 | 58.58 | 58.55 | 60.15 | 61.47 | 60.74 | 60.81 | 59.74 |



