

Appendix B: Lake Elevations and Precipitation

Big Comfort Lake

DNR ID #13-53

Wyoming Township, Chisago County

Period of record: 06/11/1952 to 12/1/2003

of readings: 568

Highest recorded: 888.32 ft (07/02/1975)

Lowest recorded: 884.8 ft (10/08/1969)

Recorded range: 3.52 ft

Average water level: 886.26 ft

Last reading: 885.61 ft (12/1/2003)

[OHW elevation: 887.2 ft](#)

Datum: 1929 (ft)

Annual Averages	Elevation (ft)
1952	
1965	885.60
1966	
1967	
1968	
1969	884.99
1970	
1971	885.90
1972	886.04
1973	885.93
1974	885.60
1975	886.74
1976	886.01
1977	885.56
1978	886.31
1979	886.16
1980	885.98
1981	885.62
1982	885.96
1983	886.32
1984	887.02
1985	886.23
1986	886.69
1987	886.15
1988	885.99
1989	886.23
1990	886.63
1991	886.95
1992	886.45
1993	886.90
1994	886.64
1995	886.81
1996	886.43
1997	886.23
1998	
1999	886.62
2000	885.92
2001	885.92
2002	885.98

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74
1985	32.11
1986	35.72
1987	21.92
1988	25.62
1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08
1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50
2003	26.53

Date	Elevation (ft)
6/11/1952	885.76
8/6/1965	885.81
8/20/1965	885.54
8/27/1965	885.44
7/24/1969	885.22
8/6/1969	885.24
8/13/1969	885.04
8/19/1969	885.02
8/26/1969	884.98
9/8/1969	884.88
9/16/1969	884.84
10/8/1969	884.80
10/18/1969	884.92
10/25/1969	884.96
4/29/1970	885.76
5/7/1971	886.13
8/13/1971	885.53
8/31/1971	885.77
11/24/1971	886.17
5/15/1972	886.08
6/12/1972	885.62
7/28/1972	886.54
8/15/1972	886.00
8/31/1972	885.97
5/10/1973	886.11
11/20/1973	885.74
5/23/1974	886.12
7/23/1974	885.70
8/28/1974	885.61
9/12/1974	885.54
9/27/1974	885.40

2003	886.19
Total Average	886.20
2/18/1975	885.68
5/9/1975	887.04
5/21/1975	886.76
6/20/1975	886.93
6/30/1975	888.28
7/2/1975	888.32
8/4/1975	886.33
8/28/1975	886.56
9/10/1975	886.40
10/22/1975	885.68
11/25/1975	886.18
2/10/1976	885.88
3/25/1976	886.81
3/30/1976	887.19
4/21/1976	886.39
4/27/1976	886.13
5/19/1976	885.73
6/21/1976	885.43
7/19/1976	885.33
8/4/1976	885.24
5/16/1977	885.42
6/10/1977	885.65
7/28/1977	885.87
8/23/1977	885.28
3/16/1978	885.79
4/19/1978	886.59
5/16/1978	886.09
6/19/1978	886.89
7/17/1978	886.89
8/15/1978	886.17
8/23/1978	886.22
9/14/1978	886.71
10/16/1978	885.99
11/15/1978	885.79
5/15/1979	886.29
6/14/1979	886.01
7/12/1979	886.41
8/17/1979	885.86
9/18/1979	886.35
11/15/1979	886.03
1/31/1980	885.82
3/21/1980	886.16
4/17/1980	886.32
5/8/1980	885.68
5/13/1980	885.66
6/25/1980	885.64
7/15/1980	885.54
8/13/1980	886.52
9/9/1980	886.78
10/27/1980	886.08
12/29/1980	885.59

4/10/1981	886.52
4/20/1981	886.20
5/19/1981	886.08
6/15/1981	886.39
7/29/1981	886.00
8/24/1981	885.52
9/22/1981	885.56
10/28/1981	885.74
12/9/1981	885.77
4/1/1982	886.80
5/13/1982	886.42
6/17/1982	885.53
7/1/1982	885.53
8/25/1982	885.33
11/18/1982	886.15
4/28/1983	886.63
8/11/1983	885.90
12/12/1983	886.42
5/11/1984	886.83
6/15/1984	887.66
8/30/1984	886.57
1/9/1985	885.75
4/25/1985	886.81
6/18/1985	885.21
7/11/1985	885.05
7/22/1985	885.30
7/29/1985	885.40
7/31/1985	885.44
8/12/1985	886.08
8/19/1985	886.08
8/28/1985	886.18
9/5/1985	886.83
9/16/1985	886.58
9/26/1985	886.78
10/10/1985	886.93
10/18/1985	887.03
10/27/1985	886.98
11/4/1985	886.83
11/10/1985	886.58
11/18/1985	886.48
4/11/1986	887.23
6/4/1986	886.81
6/17/1986	886.47
7/15/1986	886.57
8/13/1986	886.37
4/6/1987	886.10
4/13/1987	886.15
4/24/1987	886.14
6/17/1987	886.05
7/6/1987	886.23
8/21/1987	886.33
8/31/1987	886.23

10/17/1974	885.40
11/25/1974	885.42
4/21/1988	886.32
7/6/1988	885.72
7/11/1988	885.64
8/4/1988	885.76
9/7/1988	885.82
10/17/1988	886.20
10/26/1988	886.19
5/4/1989	886.59
5/10/1989	886.59
5/16/1989	886.46
5/25/1989	886.45
6/8/1989	886.31
6/15/1989	886.27
6/29/1989	886.16
7/6/1989	886.11
7/12/1989	886.01
8/10/1989	885.83
8/22/1989	885.99
9/20/1989	886.21
10/4/1989	886.11
10/26/1989	886.11
4/16/1990	886.36
4/26/1990	886.49
6/4/1990	887.13
8/10/1990	886.55
4/29/1991	886.84
4/29/1991	886.84
4/29/1991	886.84
6/6/1991	887.17
9/18/1991	887.07
11/20/1991	886.93
4/21/1992	886.84
7/23/1992	886.06
5/4/1993	886.78
5/18/1993	886.53
6/24/1993	888.10
7/15/1993	887.34
8/5/1993	886.55
10/28/1993	886.08
4/18/1994	886.70
4/29/1994	887.48
5/12/1994	887.22
5/19/1994	886.72
6/13/1994	886.14
6/18/1994	886.10
6/21/1994	886.12
6/26/1994	886.12
6/28/1994	886.08
7/2/1994	886.01
7/5/1994	886.29
7/6/1994	886.32
7/9/1994	886.39

1/15/1981	885.54
2/17/1981	885.58
3/24/1981	885.74
7/22/1994	887.10
7/26/1994	886.61
7/29/1994	886.42
7/31/1994	886.27
8/3/1994	886.37
8/11/1994	886.49
8/14/1994	886.44
8/16/1994	886.39
8/21/1994	886.29
8/24/1994	886.22
8/27/1994	886.27
9/4/1994	886.22
9/22/1994	886.27
10/2/1994	886.22
10/5/1994	886.44
10/6/1994	886.20
10/7/1994	886.87
10/8/1994	886.62
10/12/1994	886.27
10/17/1994	886.62
10/20/1994	886.52
10/23/1994	886.72
10/28/1994	886.52
11/1/1994	886.47
11/5/1994	886.42
11/9/1994	886.37
11/12/1994	886.27
3/22/1995	886.84
3/27/1995	887.06
4/11/1995	886.70
4/19/1995	886.88
4/21/1995	886.94
4/29/1995	886.72
5/2/1995	886.64
5/15/1995	886.52
5/26/1995	886.28
5/28/1995	886.54
6/3/1995	886.66
6/10/1995	886.68
7/1/1995	886.66
7/5/1995	886.82
7/5/1995	886.80
7/12/1995	887.02
7/13/1995	887.04
7/16/1995	887.08
7/23/1995	887.00
7/24/1995	886.94
8/7/1995	886.62
8/14/1995	887.22
8/15/1995	887.33
8/17/1995	887.41
8/24/1995	887.08
8/26/1995	887.09
8/28/1995	887.03
9/4/1995	886.73
9/6/1995	886.66

9/24/1987	885.98
4/14/1988	886.24
11/1/1995	886.93
11/9/1995	886.85
3/22/1996	886.71
4/12/1996	886.99
4/25/1996	886.85
4/30/1996	886.73
5/8/1996	886.69
5/12/1996	886.63
5/21/1996	887.13
5/30/1996	886.65
6/18/1996	886.43
7/18/1996	886.15
8/26/1996	885.91
8/28/1996	885.75
9/30/1996	885.97
9/30/1996	885.69
10/18/1996	886.17
10/21/1996	886.15
10/23/1996	886.29
10/23/1996	886.27
10/24/1996	886.39
10/30/1996	886.31
11/17/1996	886.73
11/19/1996	886.87
3/19/1997	886.29
3/22/1997	886.39
3/23/1997	886.45
3/25/1997	886.61
3/27/1997	886.89
3/28/1997	887.39
3/29/1997	887.49
3/30/1997	887.59
3/31/1997	887.49
4/2/1997	887.21
4/3/1997	887.20
4/4/1997	887.21
4/6/1997	887.23
4/7/1997	887.21
4/9/1997	887.15
4/10/1997	887.10
4/11/1997	887.04
4/14/1997	886.93
4/14/1997	886.95
4/15/1997	886.87
4/20/1997	886.79
4/22/1997	886.75
4/23/1997	886.71
4/24/1997	886.84
4/25/1997	886.61
4/26/1997	886.59
4/28/1997	886.71
5/4/1997	886.51
5/5/1997	886.51
5/5/1997	886.41
5/7/1997	886.46

7/16/1994	886.17
7/20/1994	886.67
7/22/1994	886.80
5/17/1997	886.21
5/19/1997	886.33
5/20/1997	886.11
5/25/1997	886.09
5/28/1997	886.31
6/4/1997	885.91
6/9/1997	886.11
6/16/1997	886.01
6/19/1997	886.01
6/23/1997	885.97
7/3/1997	886.47
7/4/1997	886.55
7/5/1997	886.65
7/7/1997	886.77
7/7/1997	886.71
7/14/1997	886.71
7/18/1997	886.57
7/21/1997	886.69
7/22/1997	886.51
7/25/1997	886.51
8/1/1997	886.35
8/3/1997	886.41
8/11/1997	886.39
8/16/1997	886.01
8/25/1997	886.35
9/1/1997	886.39
9/4/1997	886.16
9/8/1997	886.29
9/15/1997	886.23
9/18/1997	885.87
9/22/1997	886.25
9/27/1997	885.91
9/29/1997	886.01
9/30/1997	886.19
10/2/1997	885.96
10/6/1997	886.13
10/8/1997	885.86
10/11/1997	886.11
10/16/1997	886.11
10/18/1997	886.11
10/20/1997	886.11
10/24/1997	886.03
10/27/1997	886.07
10/29/1997	885.96
10/31/1997	886.01
11/4/1997	886.07
11/12/1997	886.13
4/9/1998	887.06
4/7/1999	886.62
4/7/1999	886.62
4/7/1999	886.62
3/31/2000	886.05
3/31/2000	886.05
5/13/2000	885.97

9/11/1995	886.44
9/13/1995	886.39
9/28/1995	886.25
10/4/1995	886.51
6/8/2000	885.93
6/13/2000	885.67
6/20/2000	885.67
6/22/2000	885.97
6/24/2000	885.97
6/25/2000	886.37
6/30/2000	885.67
7/7/2000	885.67
7/8/2000	885.97
7/9/2000	886.37
7/10/2000	886.57
7/12/2000	886.67
7/18/2000	886.20
7/19/2000	886.13
7/31/2000	885.72
8/10/2000	885.54
8/22/2000	885.51
8/29/2000	885.65
9/13/2000	885.80
9/25/2000	885.85
9/25/2000	885.83
10/3/2000	885.89
10/26/2000	885.76
5/8/2001	887.58
5/15/2001	886.84
5/21/2001	886.28
5/30/2001	886.12
6/7/2001	885.90
6/13/2001	886.18
6/13/2001	886.10
6/18/2001	886.28
6/20/2001	886.71
6/25/2001	885.94
6/28/2001	885.92
7/2/2001	885.83
7/9/2001	885.68
7/10/2001	885.64
7/25/2001	885.97
8/6/2001	885.80
8/7/2001	885.80
8/13/2001	885.68
8/14/2001	885.66
8/20/2001	885.74
8/27/2001	885.72
8/28/2001	885.74
9/3/2001	885.72
9/10/2001	885.82
9/13/2001	885.76
9/17/2001	885.70
9/24/2001	885.76
9/28/2001	885.70
10/1/2001	885.68
10/8/2001	885.68
10/10/2001	885.70
10/22/2001	885.71

5/8/1997	886.44
5/9/1997	886.41
5/12/1997	886.37
5/13/1997	886.31
4/11/2002	886.28
4/16/2002	886.62
4/22/2002	886.35
4/29/2002	886.35
5/6/2002	886.16
5/9/2002	886.74
5/10/2002	886.83
5/10/2002	886.83
5/10/2002	886.88
5/12/2002	887.13
5/13/2002	887.17
5/16/2002	886.41
5/18/2002	887.03
5/22/2002	886.73
5/28/2002	886.13
5/29/2002	886.73
5/29/2002	886.03
6/1/2002	885.93
6/5/2002	886.23
6/6/2002	886.21
6/10/2002	885.97
6/10/2002	886.03
6/11/2002	885.98
6/15/2002	885.82
6/16/2002	885.73
6/17/2002	885.79
6/19/2002	885.93
6/24/2002	886.07
6/25/2002	886.23
6/28/2002	886.61
6/29/2002	886.63
6/30/2002	886.53
7/1/2002	886.63
7/6/2002	886.29
7/8/2002	886.28
7/9/2002	886.29
7/15/2002	886.21
7/17/2002	886.07
7/22/2002	885.85
7/27/2002	885.78
7/29/2002	885.95
7/29/2002	885.95
8/4/2002	886.23
8/5/2002	886.33
8/8/2002	886.45
8/19/2002	885.73
8/20/2002	885.76
8/26/2002	886.17
8/27/2002	886.11
9/3/2002	886.25
9/6/2002	886.55
9/8/2002	886.43
9/9/2002	886.57
9/9/2002	886.56
9/14/2002	886.43

5/20/2000	885.77
5/24/2000	885.70
6/6/2000	885.97
6/6/2000	885.67
10/3/2002	886.03
10/6/2002	886.23
10/11/2002	886.53
10/16/2002	886.43
10/21/2002	886.29
10/28/2002	886.17
10/29/2002	886.09
11/4/2002	885.89
11/5/2002	885.87
11/12/2002	885.85
11/18/2002	885.73
11/25/2002	885.63
12/2/2002	885.53
12/9/2002	885.43
3/18/2003	885.89
3/25/2003	885.89
3/31/2003	885.92
4/9/2003	885.86
4/14/2003	885.79
4/15/2003	885.81
4/22/2003	886.55
4/28/2003	886.25
5/2/2003	886.09
5/2/2003	886.09
5/5/2003	886.09
5/6/2003	886.15
5/6/2003	886.15
5/12/2003	886.83
5/16/2003	887.11
5/16/2003	887.11
5/19/2003	887.05
5/23/2003	887.35
5/27/2003	887.17
5/29/2003	887
5/29/2003	887
6/11/2003	886.09
6/16/2003	885.95
6/20/2003	885.85
6/27/2003	886.87
6/27/2003	886.97
7/1/2003	887.24
7/7/2003	887.31
7/10/2003	887.19
7/11/2003	887.15
7/14/2003	886.93
7/15/2003	887.13
7/21/2003	887.13
7/21/2003	887.13
7/23/2003	886.51
8/4/2003	885.83
8/6/2003	885.81
8/11/2003	885.7
8/18/2003	885.55
8/21/2003	885.6
8/25/2003	885.55

10/29/2001	885.69
11/5/2001	885.69
11/12/2001	885.69
11/18/2001	885.69
12/10/2001	885.76

9/16/2002	886.29
9/18/2002	886.11
9/25/2002	885.92
9/30/2002	885.93
10/1/2002	885.87

9/2/2003	885.45
9/4/2003	885.45
9/8/2003	885.45
9/15/2003	885.71
9/18/2003	885.63

9/23/2003	885.65
9/29/2003	885.60
10/2/2003	885.51
10/7/2003	885.79
10/13/2003	885.67
10/14/2003	885.65
10/20/2003	885.60
10/27/2003	885.58
11/3/2003	885.63
11/3/2003	885.61
11/13/2003	885.61
11/18/2003	885.61
11/24/2003	885.71
12/1/2003	885.61

Bone Lake
DNR ID #82-54
New Scandia Township, Washington County

Period of record: 06/01/1965 to 04/15/2003
of readings: 303
Highest recorded: 910.97 ft (07/07/1975)
Lowest recorded: 906.7 ft(11/07/1966)
Recorded range: 4.27 ft
Average water level: 908.47
Last reading: 908.65 ft (04/15/2003)
OHW elevation: 909.1 ft
Datum: 1929 (ft)

Annual Averages	Elevation (ft)
1965	909.86
1966	907.38
1967	908.55
1968	908.44
1969	
1970	908.00
1971	908.56
1972	909.37
1973	908.36
1974	908.25
1975	909.19
1976	909.39
1977	907.88
1978	908.75
1979	908.26
1980	908.68
1981	908.52
1982	907.95
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	907.83
1991	
1992	
1993	
1994	907.99
1995	908.62
1996	908.13
1997	908.20
1998	908.58
1999	909.08
2000	908.39
2001	

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74
1985	32.11
1986	35.72
1987	21.92
1988	25.62
1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08
1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50

Date	Elevation (ft)
6/1/1965	910.55
11/24/1965	909.16
5/6/1966	908.06
11/7/1966	906.70
5/15/1967	909.32
9/27/1967	907.78
6/21/1968	909.48
8/23/1968	907.40
4/23/1970	907.82
5/8/1970	907.92
5/25/1970	908.02
6/9/1970	907.92
6/30/1970	907.97
7/7/1970	907.87
7/17/1970	907.98
8/7/1970	907.96
9/1/1970	907.75
9/21/1970	907.68
10/8/1970	907.72
10/23/1970	907.94
11/9/1970	908.58
11/23/1970	908.82
4/21/1971	909.06
5/24/1971	908.85
6/8/1971	909.13
7/12/1971	908.44
8/31/1971	907.74
9/15/1971	907.93
9/27/1971	907.87
10/27/1971	908.09
11/8/1971	909.15
11/16/1971	909.37

2002	908.51
Total Average	907.99

2003	26.53
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7/18/1972	909.34
7/21/1972	909.37
7/24/1972	909.56
8/3/1972	909.42
8/9/1972	909.39
8/14/1972	909.34
8/28/1972	909.39
9/15/1972	909.24
9/26/1972	909.31
10/25/1972	909.31
4/16/1973	910.00
5/23/1973	909.80
6/6/1973	910.00
7/2/1973	908.07
7/25/1973	907.86
8/8/1973	907.81
8/22/1973	907.88
9/14/1973	907.74
9/26/1973	907.84
9/28/1973	907.74
10/10/1973	907.84
10/11/1973	908.04
11/9/1973	908.04
4/26/1974	908.94
5/17/1974	908.48
6/10/1974	908.83
7/9/1974	908.26
7/26/1974	908.13
8/16/1974	908.18
10/25/1974	907.62
11/26/1974	907.56
5/8/1975	910.02
6/13/1975	909.12
6/30/1975	910.52
7/7/1975	910.97
7/16/1975	909.62
7/30/1975	908.42
8/18/1975	908.12
8/28/1975	908.80
8/29/1975	908.74
10/28/1975	908.24
11/14/1975	908.52
4/21/1976	910.31
5/11/1976	909.45
5/26/1976	909.27
5/26/1976	910.72
7/6/1976	908.99
11/24/1976	907.58

4/21/1978	909.01
5/19/1978	908.62
6/22/1978	908.73
8/3/1978	908.95
12/4/1978	908.45
5/21/1979	908.56
6/18/1979	908.64
7/2/1979	908.28
8/3/1979	908.26
9/13/1979	908.14
10/11/1979	908.06
10/26/1979	907.88
6/6/1980	908.42
8/19/1980	908.54
9/12/1980	909.09
9/25/1980	909.00
11/13/1980	908.33
4/15/1981	908.47
4/30/1981	908.52
5/5/1981	908.70
6/5/1981	908.31
6/19/1981	909.02
7/6/1981	908.86
8/27/1981	908.17
11/12/1981	908.09
4/26/1982	908.57
6/18/1982	907.97
7/16/1982	907.76
8/6/1982	907.77
9/14/1982	907.79
10/7/1982	907.88
11/10/1982	907.93
6/20/1989	908.10
8/10/1990	907.83
8/17/1990	907.73
8/18/1990	907.91
8/23/1990	907.93
8/27/1990	908.03
9/1/1990	907.95
9/12/1990	907.87
9/19/1990	907.77
9/23/1990	907.77
10/1/1990	907.69
11/9/1990	907.68

4/29/1972	910.27
5/16/1972	910.03
5/25/1972	909.78
5/30/1972	909.84
6/12/1972	909.47
6/22/1972	909.50
6/29/1972	909.22
7/7/1972	909.14
6/27/1994	907.90
7/4/1994	907.78
7/5/1994	907.96
7/11/1994	907.94
7/18/1994	907.94
7/25/1994	908.04
8/1/1994	907.98
8/7/1994	908.00
8/16/1994	908.02
8/23/1994	907.94
8/29/1994	907.96
9/5/1994	907.96
9/12/1994	907.92
9/19/1994	907.94
4/14/1995	908.69
4/24/1995	908.67
5/2/1995	908.37
5/10/1995	908.29
5/15/1995	908.17
5/22/1995	908.07
5/29/1995	908.41
6/6/1995	909.55
6/12/1995	908.75
6/19/1995	908.33
6/21/1995	908.33
6/26/1995	908.23
7/4/1995	908.13
7/10/1995	908.73
7/18/1995	909.03
7/25/1995	908.73
8/2/1995	908.45
8/8/1995	908.37
8/15/1995	909.53
8/22/1995	909.31
8/29/1995	908.93
9/5/1995	908.63
9/12/1995	908.43
9/26/1995	908.25
10/3/1995	908.53
10/31/1995	909.19
4/25/1996	908.72
5/7/1996	908.38
5/14/1996	908.28
5/21/1996	908.92
5/28/1996	908.58
6/4/1996	908.40
6/11/1996	908.24
6/18/1996	908.20
6/25/1996	908.20
7/2/1996	908.20

4/11/1977	907.75
4/28/1977	907.93
5/16/1977	907.83
6/6/1977	907.83
6/24/1977	907.74
7/22/1977	907.61
9/13/1977	907.88
11/8/1977	908.44

4/29/1991	908.35
11/6/1992	907.87
4/18/1994	908.42
6/1/1994	908.14
6/6/1994	908.08
6/13/1994	907.98
6/20/1994	907.96

7/9/1996	908.06
7/16/1996	907.92
7/23/1996	907.94
7/30/1996	907.86
8/6/1996	907.82
8/13/1996	907.75
8/20/1996	907.68
8/27/1996	907.68
9/18/1996	907.70

4/16/1997	908.72
4/23/1997	908.38
5/6/1997	908.14
5/27/1997	908.12
6/3/1997	908.08
6/5/1997	908.12
6/10/1997	908.02
6/17/1997	907.92
6/23/1997	907.94
6/24/1997	907.98
7/1/1997	908.06
7/7/1997	908.42
7/9/1997	908.54
7/15/1997	908.58
7/22/1997	908.46
7/29/1997	908.42
8/5/1997	908.24
8/12/1997	908.10
8/19/1997	908.02
8/25/1997	908.10
9/4/1997	908.04
9/17/1997	908.06
4/7/1998	909.30
4/7/1998	909.30
4/21/1998	908.80
4/28/1998	908.50
5/4/1998	908.40
5/13/1998	908.46
5/19/1998	908.56
5/26/1998	908.50
6/2/1998	908.48
6/9/1998	908.46
6/16/1998	908.49
6/23/1998	908.50
6/30/1998	909.28
7/7/1998	908.82
7/14/1998	908.58
7/21/1998	908.47
7/28/1998	908.46
8/4/1998	908.50
8/11/1998	908.48
8/19/1998	908.44
8/31/1998	908.50
9/9/1998	908.38
9/26/1998	908.26
10/8/1998	908.24
10/20/1998	908.40
10/22/1998	908.42

6/22/1999	908.57
7/6/1999	908.49
7/14/1999	908.37
7/21/1999	908.21
7/27/1999	908.65
8/3/1999	908.63
8/11/1999	908.47
8/24/1999	909.41
8/26/1999	909.23
8/31/1999	908.91
9/5/1999	908.75
9/21/1999	908.59
9/28/1999	908.47
4/7/2000	908.45
5/29/2000	908.23
6/2/2000	908.33
6/17/2000	908.33
7/1/2000	908.35
7/9/2000	908.77
7/12/2000	908.95
7/19/2000	908.63
7/26/2000	908.57
8/3/2000	908.51
8/11/2000	908.27
8/20/2000	908.21
9/1/2000	908.17
9/10/2000	908.17
10/1/2000	908.17
10/17/2000	908.15
4/18/2001	909.35
4/17/2002	909.10
7/15/2002	908.38
7/23/2002	908.18
7/31/2002	908.18
8/8/2002	908.24
8/21/2002	908.30
8/30/2002	908.26
9/6/2002	909.14
9/15/2002	908.82
11/19/2002	908.48
4/15/2003	908.65

4/13/1999	909.27
4/27/1999	909.09
5/5/1999	909.05
5/11/1999	909.21
5/18/1999	909.37
5/25/1999	909.09
6/1/1999	908.63
6/13/1999	908.89

Forest Lake (West)
DNR ID #82-159
Forest Lake Township, Washington County

Period of record: 04/30/1965 to 9/7/2003
of readings: 546
Highest recorded: 902.23 ft (06/25/1993)
[Highest known: 902.6 ft \(1975\)](#)
Lowest recorded: 899.45 ft (10/07/1969)
Recorded range: 2.78 ft
Average water level: 901.43 ft
Last reading: 901.2 ft (9/7/2003)
[OHW elevation: 901.8 ft](#)
Datum: 1929 (ft)

Annual Averages	Elevation (ft)
1965	901.39
1966	901.03
1967	901.11
1968	901.24
1969	900.71
1970	901.07
1971	901.28
1972	901.17
1973	901.29
1974	901.34
1975	901.45
1976	900.99
1977	
1978	901.84
1979	901.71
1980	901.72
1981	
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	901.46
1991	901.45
1992	901.24
1993	901.58
1994	901.39
1995	901.61
1996	901.36
1997	901.37

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74
1985	32.11
1986	35.72
1987	21.92
1988	25.62
1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08

Date	Elevation (ft)
4/30/1965	901.54
5/5/1965	901.54
5/16/1965	901.66
5/30/1965	901.47
6/1/1965	901.89
6/13/1965	901.85
6/28/1965	901.53
7/12/1965	901.55
7/25/1965	901.39
8/9/1965	901.27
8/22/1965	901.11
9/5/1965	901.11
9/17/1965	901.14
10/2/1965	901.21
10/16/1965	901.23
10/30/1965	901.16
11/12/1965	901.11
11/24/1965	901.17
4/26/1966	901.37
5/6/1966	901.26
5/23/1966	901.25
6/4/1966	901.20
6/13/1966	901.20
6/21/1966	901.20
6/29/1966	901.18
7/19/1966	901.12
7/27/1966	901.00
8/8/1966	900.88
8/27/1966	900.88
9/20/1966	900.74
10/4/1966	900.68
10/17/1966	900.80

1998	901.44
1999	901.49
2000	901.68
2001	901.64
2002	901.55
2003	901.69
Total Average	901.39

1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50
2003	26.53

11/7/1966	900.69
6/2/1967	901.19
6/17/1967	901.37
6/21/1967	901.37
7/14/1967	901.20
7/28/1967	901.11
8/11/1967	900.99
8/27/1967	901.05
9/10/1967	900.94
9/27/1967	900.80
10/26/1978	901.33

5/6/1968	901.15
5/24/1968	901.10
6/10/1968	901.33
6/21/1968	901.51
6/26/1968	901.53
8/6/1968	901.17
9/6/1968	900.95
9/18/1968	901.05
9/23/1968	901.13
10/8/1968	901.11
10/18/1968	901.43
11/6/1968	901.33
11/20/1968	901.29
5/1/1969	901.35
6/2/1969	900.99
6/19/1969	900.95
7/24/1969	900.92
8/29/1969	900.60
10/7/1969	899.45
4/23/1970	901.10
5/8/1970	901.10
5/25/1970	901.10
6/9/1970	901.14
6/30/1970	901.18
7/7/1970	901.08
7/17/1970	901.06
8/7/1970	900.99
9/1/1970	900.96
9/21/1970	900.90
10/8/1970	900.95
10/23/1970	900.94
11/9/1970	901.24
11/23/1970	901.30
4/21/1971	901.41
5/24/1971	901.31
6/8/1971	901.29
7/7/1971	901.21
7/12/1971	901.30
8/31/1971	901.42
9/24/1971	901.11
10/26/1971	901.16
10/29/1971	901.21
11/5/1971	901.35
4/29/1972	901.36

8/28/1972	901.15
9/15/1972	901.07
9/26/1972	901.10
10/25/1972	901.08
4/16/1973	901.35
5/23/1973	901.38
6/6/1973	901.51
7/2/1973	901.43
7/25/1973	901.23
8/8/1973	901.17
8/8/1973	901.33
8/22/1973	901.17
9/14/1973	901.15
9/26/1973	901.13
10/11/1973	901.30
11/9/1973	901.27
4/26/1974	901.56
5/17/1974	901.46
6/10/1974	901.62
6/25/1974	901.48
7/9/1974	901.32
7/26/1974	901.22
8/16/1974	901.28
10/25/1974	901.04
11/26/1974	901.12
5/8/1975	901.73
6/13/1975	901.69
6/23/1975	902.03
6/24/1975	901.92
6/30/1975	901.95
7/7/1975	901.97
7/16/1975	901.67
7/30/1975	901.42
8/18/1975	900.76
8/29/1975	900.97
10/28/1975	900.69
11/14/1975	900.63
4/21/1976	901.78
5/11/1976	901.38
5/26/1976	901.24
7/6/1976	900.98
8/11/1976	900.62
11/24/1976	899.94
7/22/1977	900.98

5/21/1979	901.74
6/12/1979	901.74
6/19/1979	901.84
7/2/1979	901.92
8/3/1979	901.60
8/7/1979	901.54
9/4/1979	901.89
9/13/1979	901.81
9/25/1979	901.64
10/11/1979	901.54
10/26/1979	901.58
5/5/1980	901.51
5/20/1980	901.41
6/3/1980	901.51
6/9/1980	901.60
8/2/1980	902.00
8/19/1980	901.65
9/12/1980	902.21
9/25/1980	902.09
10/30/1980	901.67
11/13/1980	901.58
7/13/1981	901.73
5/4/1989	901.49
10/27/1989	900.64
4/16/1990	901.21
4/26/1990	901.35
4/29/1990	901.43
5/4/1990	901.43
5/11/1990	901.35
5/19/1990	901.56
5/25/1990	901.59
6/4/1990	901.76
6/12/1990	901.71
6/16/1990	901.81
6/29/1990	901.71
7/4/1990	901.59
7/16/1990	901.41
7/26/1990	901.53
7/31/1990	901.59
8/2/1990	901.51
8/6/1990	901.43
8/14/1990	901.31
8/19/1990	901.49

5/25/1972	901.22
5/30/1972	901.22
6/12/1972	901.34
6/22/1972	901.16
6/29/1972	901.15
7/7/1972	901.12
7/18/1972	901.11
7/21/1972	901.22
7/24/1972	901.20
8/3/1972	901.14
8/9/1972	901.14
8/14/1972	901.12
7/25/1991	901.40
8/22/1991	901.24
10/14/1991	901.22
11/20/1991	901.59
4/1/1992	901.45
4/18/1992	901.53
4/28/1992	901.59
5/1/1992	901.57
5/5/1992	901.49
5/8/1992	901.43
5/13/1992	901.39
5/20/1992	901.31
5/26/1992	901.29
5/30/1992	901.26
6/2/1992	901.16
6/6/1992	901.17
6/11/1992	901.15
6/16/1992	901.11
6/25/1992	901.17
7/2/1992	901.33
7/6/1992	901.29
7/12/1992	901.33
7/15/1992	901.31
7/22/1992	901.25
7/29/1992	901.19
8/5/1992	901.15
8/14/1992	901.13
8/18/1992	901.09
8/23/1992	901.03
8/26/1992	901.13
9/1/1992	901.05
9/16/1992	901.13
9/23/1992	901.07
10/4/1992	900.96
10/14/1992	901.05
10/25/1992	901.05
5/4/1993	901.54
5/6/1993	901.48
5/12/1993	901.50
5/13/1993	901.49
5/17/1993	901.38
5/25/1993	901.43
6/1/1993	901.48

11/8/1977	901.64
4/21/1978	901.87
5/19/1978	901.57
6/22/1978	901.83
6/28/1978	902.02
7/6/1978	902.13
7/15/1978	902.03
7/17/1978	901.94
8/2/1978	901.82
8/28/1978	901.89
9/5/1978	901.82
7/19/1993	901.77
7/21/1993	901.69
7/29/1993	901.60
7/30/1993	901.51
8/3/1993	901.39
8/8/1993	901.38
8/9/1993	901.53
8/10/1993	901.53
8/16/1993	901.49
8/19/1993	901.55
8/23/1993	901.47
8/30/1993	901.38
9/7/1993	901.23
9/11/1993	901.15
9/15/1993	901.23
9/21/1993	901.28
9/30/1993	901.23
10/9/1993	901.18
10/21/1993	901.23
10/24/1993	901.23
4/18/1994	901.51
4/30/1994	902.02
5/2/1994	902.00
5/3/1994	901.96
5/9/1994	901.76
5/13/1994	901.64
5/19/1994	901.52
5/23/1994	901.46
5/26/1994	901.36
5/30/1994	901.31
6/1/1994	901.26
6/2/1994	901.23
6/6/1994	901.24
6/13/1994	901.16
6/20/1994	901.16
6/24/1994	901.16
6/29/1994	901.11
7/4/1994	901.06
7/5/1994	901.26
7/16/1994	901.18
7/20/1994	901.34
7/29/1994	901.21
8/1/1994	901.16

8/30/1990	901.51
9/5/1990	901.46
9/11/1990	901.41
9/17/1990	901.31
9/25/1990	901.23
10/5/1990	901.23
10/16/1990	901.16
10/22/1990	901.23
4/29/1991	901.59
5/10/1991	901.60
6/8/1991	901.50
6/24/1995	901.40
7/4/1995	901.36
7/6/1995	901.58
7/12/1995	901.58
7/13/1995	901.74
7/25/1995	901.65
8/5/1995	901.42
8/9/1995	901.53
8/10/1995	901.51
8/12/1995	901.64
8/13/1995	901.84
8/13/1995	901.95
8/13/1995	901.93
8/21/1995	901.86
8/28/1995	901.80
9/5/1995	901.64
9/11/1995	901.50
9/14/1995	901.45
9/22/1995	901.38
9/29/1995	901.50
10/9/1995	901.64
10/22/1995	901.50
5/4/1996	901.58
5/6/1996	901.62
5/6/1996	901.62
5/13/1996	901.58
5/21/1996	901.74
5/27/1996	901.64
6/4/1996	901.50
6/4/1996	901.48
6/5/1996	901.62
6/14/1996	901.38
6/17/1996	901.54
6/25/1996	901.48
6/25/1996	901.46
6/26/1996	901.58
7/6/1996	901.40
7/18/1996	901.44
7/23/1996	901.38
7/25/1996	901.40
8/7/1996	901.36
8/12/1996	901.30
8/15/1996	901.24
8/20/1996	901.20

6/7/1993	901.41
6/13/1993	901.48
6/17/1993	901.73
6/19/1993	901.87
6/21/1993	901.91
6/23/1993	902.13
6/24/1993	902.23
6/25/1993	902.23
6/26/1993	902.17
6/28/1993	902.09
7/2/1993	902.03
7/15/1993	901.89
5/6/1997	901.45
5/7/1997	901.47
5/13/1997	901.39
5/20/1997	901.31
5/20/1997	901.36
5/22/1997	901.33
5/28/1997	901.29
6/2/1997	901.27
6/4/1997	901.29
6/5/1997	901.29
6/12/1997	901.21
6/18/1997	901.11
6/19/1997	901.11
6/27/1997	901.10
6/29/1997	901.27
7/2/1997	901.47
7/3/1997	901.39
7/7/1997	901.55
7/7/1997	901.43
7/8/1997	901.51
7/11/1997	901.51
7/13/1997	901.59
7/14/1997	901.65
7/16/1997	901.60
7/27/1997	901.57
8/1/1997	901.41
8/1/1997	901.45
8/2/1997	901.53
8/13/1997	901.29
8/16/1997	901.27
8/27/1997	901.33
8/28/1997	901.31
9/4/1997	901.36
10/2/1997	901.26
10/6/1997	901.23
10/11/1997	901.21
4/9/1998	901.76
4/11/1998	901.74
4/23/1998	901.54
4/27/1998	901.44
4/29/1998	901.40
5/11/1998	901.38

4/19/1995	901.80
4/30/1995	901.68
5/3/1995	901.60
5/7/1995	901.57
5/12/1995	901.51
5/26/1995	901.36
5/28/1995	901.58
5/30/1995	901.58
6/6/1995	901.64
6/7/1995	901.68
6/8/1995	901.64
6/13/1995	901.62
8/14/1998	901.22
9/10/1998	901.12
4/7/1999	901.59
4/24/1999	901.50
5/1/1999	901.41
5/9/1999	901.46
5/12/1999	901.60
5/25/1999	901.56
5/28/1999	901.52
6/2/1999	901.40
6/6/1999	901.58
6/12/1999	901.66
6/18/1999	901.51
6/19/1999	901.46
6/27/1999	901.42
6/30/1999	901.40
7/6/1999	901.46
7/12/1999	901.36
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7/26/1999	901.58
7/27/1999	901.58
7/29/1999	901.56
8/2/1999	901.51
8/15/1999	901.31
3/31/2000	901.45
6/11/2000	901.77
6/15/2000	901.75
6/19/2000	901.75
6/26/2000	901.75
7/5/2000	901.70
7/7/2000	901.90
7/9/2000	902.07
7/29/2000	901.75
8/13/2000	901.65
8/19/2000	901.65
9/9/2000	901.50
9/10/2000	901.57
10/12/2000	901.25
5/7/2001	902.15
5/8/2001	901.83

8/22/1996	901.26
8/28/1996	901.18
8/28/1996	901.18
9/10/1996	901.10
9/18/1996	900.96
9/25/1996	900.98
10/5/1996	900.94
10/18/1996	900.98
10/25/1996	901.10
4/22/1997	901.59
5/4/1997	901.47
7/4/2001	901.53
7/5/2001	901.48
7/7/2001	901.43
7/9/2001	901.43
7/15/2001	901.34
7/23/2001	901.43
8/17/2001	901.19
8/19/2001	901.29
9/16/2001	901.15
4/22/2002	901.73
5/10/2002	901.89
5/10/2002	901.90
5/13/2002	901.90
5/22/2002	901.65
5/28/2002	901.52
6/1/2002	901.45
6/19/2002	901.50
6/22/2002	901.58
6/24/2002	901.74
7/1/2002	901.64
7/7/2002	901.50
7/9/2002	901.51
7/11/2002	901.52
7/18/2002	901.43
7/21/2002	901.35
7/26/2002	901.43
7/30/2002	901.40
8/3/2002	901.35
8/4/2002	901.55
8/6/2002	901.55
8/22/2002	901.50
8/22/2002	901.55
8/29/2002	901.42
9/1/2002	901.36
9/2/2002	901.56
9/6/2002	901.67
9/7/2002	901.64
9/14/2002	901.53
9/19/2002	901.40
9/21/2002	901.41
10/2/2002	901.45
10/10/2002	901.69

5/18/1998	901.32
5/19/1998	901.38
5/22/1998	901.32
5/26/1998	901.28
6/5/1998	901.30
6/19/1998	901.40
6/22/1998	901.38
6/24/1998	901.52
6/25/1998	901.70
6/27/1998	901.76
7/13/1998	901.50
7/20/1998	901.44
7/29/1998	901.26

5/8/2001	902.08
5/15/2001	901.93
5/16/2001	901.88
5/25/2001	901.83
5/29/2001	901.78
6/3/2001	901.73
6/4/2001	901.65
6/10/2001	901.77
6/18/2001	901.79
6/22/2001	901.75
6/25/2001	901.69
6/26/2001	901.67
6/28/2001	901.65

10/27/2002	901.57
11/10/2002	901.47
11/14/2002	901.43
5/2/2003	901.6
5/10/2003	901.64
5/12/2003	901.84
5/13/2003	901.86
5/13/2003	901.86
5/19/2003	901.79
5/20/2003	901.96
5/27/2003	901.84
6/3/2003	901.69

6/20/2003	901.56
6/24/2003	901.46
6/25/2003	901.94
6/28/2003	902.07
6/29/2003	902.08
7/8/2003	901.83
7/26/2003	901.51
7/28/2003	901.48
8/5/2003	901.44
8/13/2003	901.34
9/7/2003	901.02

Halfbreed (Sylvan) Lake

DNR ID #82-80

Forest Lake Township/New Scandia Township, Washington County

Period of record: 09/17/1981 to 11/4/2003

of readings: 303

Highest recorded: 938 ft (7/3/2003)

[Highest known: 938 ft \(7/3/2003\)](#)

Lowest recorded: 934.52 ft (11/22/1990)

Recorded range: 3.48 ft

Average water level: 936.82 ft

Last reading: 937.94 ft (11/4/2003)

[OHW elevation: 937.1 ft](#)

Datum: 1929 (ft)

Annual Averages	Elevation (ft)
1981	936.85
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	934.71
1991	936.28
1992	936.12
1993	937.08
1994	936.88
1995	937.08
1996	937.28
1997	936.82
1998	936.81
1999	936.97
2000	936.28
2001	937.00
2002	937.22
2003	937.47

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74
1985	32.11
1986	35.72
1987	21.92
1988	25.62

Date	Elevation (ft)
9/17/1981	936.93
9/24/1981	936.77
8/10/1990	934.74
8/20/1990	934.91
8/24/1990	934.79
8/29/1990	934.90
9/6/1990	934.84
9/9/1990	934.84
9/19/1990	934.72
9/28/1990	934.59
10/15/1990	934.62
10/20/1990	934.64
10/28/1990	934.59
11/12/1990	934.54
11/22/1990	934.52
4/29/1991	934.97
6/8/1991	935.07
6/12/1991	936.31
6/15/1991	936.38
7/20/1991	936.52
8/10/1991	936.52
8/18/1991	936.52

Total Average	936.67
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1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08
1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50
2003	26.53

9/14/1991	936.76
9/24/1991	936.51
10/24/1991	936.56
11/20/1991	936.91
4/21/1992	936.67
4/26/1992	936.61
5/11/1992	936.51
5/21/1992	936.41
5/30/1992	936.33
6/6/1992	936.21
6/13/1992	936.13
6/21/1992	936.19
7/5/1992	936.19
7/10/1992	936.21
7/12/1992	936.31
8/31/1998	936.71
9/14/1998	936.50
9/19/1998	936.46
9/26/1998	936.44
9/28/1998	936.42
10/21/1998	936.32
10/23/1998	936.46
4/15/1999	936.95
4/20/1999	936.99
5/10/1999	936.99
5/11/1999	936.96
5/16/1999	937.09
5/20/1999	937.09
5/26/1999	937.06
6/10/1999	937.13
6/16/1999	937.05
6/23/1999	937.05
7/1/1999	936.99
7/6/1999	936.99
7/10/1999	936.95
7/19/1999	936.84
7/23/1999	936.85
8/4/1999	937.01
8/17/1999	936.89
8/23/1999	937.18
8/24/1999	937.17
9/8/1999	936.99
9/23/1999	936.89
9/24/1999	936.89
10/4/1999	936.80
10/20/1999	936.73
10/25/1999	936.69
4/7/2000	936.80
4/12/2000	936.76
4/24/2000	936.72
5/4/2000	936.70
5/10/2000	936.68

8/2/1992	936.09
9/13/1992	936.19
11/4/1992	936.07
5/4/1993	936.76
6/18/1993	937.11
6/21/1993	937.18
6/24/1993	937.22
7/4/1993	937.20
7/17/1993	937.20
7/29/1993	937.09
8/9/1993	937.16
9/1/1993	937.18
10/28/1993	936.68
4/18/1994	936.87
4/26/1994	937.21
5/19/1994	937.17
6/1/1994	936.99
6/8/1994	936.93
6/16/1994	936.85
6/20/1994	936.85
7/5/1994	936.85
7/9/1994	936.81
7/16/1994	936.81
7/26/1994	936.73
8/7/1994	936.77
8/15/1994	936.77
8/22/1994	936.69
9/10/1994	936.69
9/20/1994	936.79
10/20/1994	937.01
11/2/1994	936.99
4/19/1995	937.16
6/3/1995	937.07
6/17/1995	937.03
6/23/1995	936.89
7/7/1995	937.11

7/19/1996	937.04
7/23/1996	937.04
7/31/1996	937.00
8/8/1996	936.94
8/20/1996	936.80
8/29/1996	936.72
9/13/1996	936.58
10/10/1996	936.70
10/28/1996	936.69
11/6/1996	936.92
11/20/1996	937.34
4/16/1997	937.20
6/4/1997	936.66
6/10/1997	936.83
6/16/1997	936.72
6/20/1997	936.26
7/8/1997	936.95
7/9/1997	936.96
7/13/1997	936.86
7/16/1997	936.98
7/21/1997	936.96
7/30/1997	936.86
7/31/1997	936.94
8/13/1997	936.74
8/14/1997	936.66
8/24/1997	936.80
8/27/1997	936.78
9/15/1997	936.86
9/16/1997	936.76
10/1/1997	936.74
10/17/1997	936.83
10/29/1997	936.76
11/6/1997	936.84
4/7/1998	937.44
4/28/1998	937.06
5/11/1998	937.04
5/26/1998	936.94

7/14/1995	937.21
7/26/1995	937.07
8/8/1995	936.92
8/18/1995	937.17
9/4/1995	937.15
9/16/1995	937.13
4/25/1996	937.42
5/23/1996	937.34
6/2/1996	937.34
6/4/1996	937.34
6/15/1996	937.32
6/20/1996	937.30
6/25/1996	937.30
6/29/1996	937.29
7/11/1996	937.06
7/12/1996	937.04
8/6/2000	936.46
8/10/2000	936.48
8/22/2000	936.36
8/25/2000	936.36
8/25/2000	936.36
8/29/2000	936.44
9/2/2000	936.30
9/2/2000	936.30
9/14/2000	936.36
9/21/2000	936.26
9/21/2000	936.26
9/25/2000	936.20
9/26/2000	936.20
9/28/2000	936.18
10/3/2000	936.14
10/9/2000	936.04
10/26/2000	936.02
4/18/2001	937.11
4/21/2001	937.21
4/22/2001	937.19
4/23/2001	937.45
4/27/2001	937.43
5/15/2001	937.39
5/30/2001	937.41
6/7/2001	937.43
6/20/2001	937.57
6/28/2001	937.41
7/10/2001	937.06
7/24/2001	936.89
7/27/2001	936.77
7/27/2001	936.85
8/7/2001	936.77
8/8/2001	936.75
8/14/2001	936.61
8/14/2001	936.65
8/22/2001	936.55
8/28/2001	936.61

5/28/1998	936.98
6/4/1998	936.94
6/6/1998	936.92
6/8/1998	936.90
6/22/1998	936.90
6/28/1998	937.18
7/7/1998	937.03
7/12/1998	937.04
7/19/1998	936.94
7/20/1998	936.94
7/25/1998	936.80
8/1/1998	936.70
8/5/1998	936.72
8/8/1998	936.76
8/15/1998	936.68
8/19/1998	936.70
8/31/1998	936.72
6/26/2002	937.41
7/9/2002	937.19
7/16/2002	937.17
7/17/2002	937.15
7/29/2002	937.21
8/8/2002	937.23
8/10/2002	937.21
8/15/2002	937.11
8/20/2002	937.05
8/27/2002	937.19
9/6/2002	937.41
9/10/2002	937.35
9/14/2002	937.25
9/18/2002	937.25
9/21/2002	937.23
9/25/2002	937.19
10/1/2002	937.23
10/11/2002	937.48
10/16/2002	937.45
10/20/2002	937.25
10/25/2002	937.45
10/29/2002	937.45
10/30/2002	937.47
11/5/2002	937.39
11/13/2002	937.35
11/14/2002	937.37
4/15/2003	937.04
4/21/2003	937.22
5/6/2003	937.18
5/16/2003	937.49
5/27/2003	937.68
6/5/2003	937.57
6/8/2003	937.62
6/11/2003	937.62
6/15/2003	937.47
6/25/2003	937.95
6/27/2003	937.94

5/26/2000	936.68
5/26/2000	936.68
6/8/2000	936.74
6/14/2000	936.66
6/14/2000	936.66
6/17/2000	936.64
6/22/2000	936.62
6/30/2000	936.66
6/30/2000	936.66
7/6/2000	936.57
7/9/2000	936.90
7/9/2000	936.90
7/19/2000	936.74
7/20/2000	936.64
7/20/2000	936.64
7/31/2000	936.58
8/6/2000	936.46

9/15/2001	936.65
10/10/2001	936.73
12/1/2001	936.75
12/22/2001	936.69
4/1/2002	937.31
4/17/2002	937.11
5/1/2002	937.33
5/9/2002	937.33
5/10/2002	937.31
5/13/2002	937.31
6/3/2002	937.17
6/4/2002	937.11
6/10/2002	937.15
6/11/2002	937.21
6/17/2002	937.15
6/18/2002	937.21
6/25/2002	937.17

7/2/2003	937.94
7/3/2003	938
7/11/2003	937.91
7/23/2003	937.8
8/6/2003	937.79
8/14/2003	937.64
8/21/2003	937.54
8/21/2003	937.54
9/4/2003	937.24
9/18/2003	937.18
10/1/2003	937.04
10/10/2003	936.92
10/14/2003	937
10/26/2003	936.92
11/4/2003	936.94

Little Comfort Lake
DNR ID #13-54
Wyoming Township, Chisago County

Period of record: 01/09/1985 to 05/23/2003
of readings: 43
Highest recorded: 887.81 ft (05/08/2001)
Lowest recorded: 885.55 ft (07/16/2001)
Recorded range: 2.26 ft
Average water level: 886.24 ft
Last reading: 887.6 ft (05/23/2003)
OHW elevation: 887.2 ft
Datum: 1929 (ft)

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74
1985	32.11

Annual Averages	Elevation (ft)
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
1991	
1992	
1993	
1994	
1995	
1996	
1997	
1998	
1999	
2000	

Date	Elevation (ft)
6/13/2001	886.21
6/16/2001	886.33
6/21/2001	886.25
6/28/2001	885.89
7/10/2001	885.65
7/16/2001	885.55
8/3/2001	885.81
8/16/2001	885.61
8/28/2001	885.72
9/8/2001	885.81
9/21/2001	885.67
10/12/2001	885.59
10/24/2001	885.75
5/10/2002	886.97
5/12/2002	887.29
5/21/2002	886.87
6/5/2002	886.19
6/10/2002	885.97
6/16/2002	885.81
6/24/2002	886.13

1986	35.72
1987	21.92
1988	25.62
1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08
1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50

2001	885.86
2002	886.18

6/29/2002	886.71
7/10/2002	886.37
7/24/2002	885.77
7/31/2002	885.93
8/4/2002	886.31
8/9/2002	886.43
8/16/2002	885.89
8/20/2002	885.75
8/22/2002	886.11
9/5/2002	886.35
9/7/2002	886.63
9/11/2002	886.59
9/19/2002	886.05
10/9/2002	886.51
10/14/2002	886.59
10/16/2002	886.57
10/18/2002	886.51
10/20/2002	886.43
10/21/2002	886.36
10/23/2002	886.29

Date	Elevation (ft)
1/9/1985	885.75
5/8/2001	887.81

Shields Lake
DNR ID #82-162
Forest Lake Township, Washington County

Period of record: 06/04/1991 to 10/14/2003
of readings: 132
Highest recorded: 903.99 ft (6/27/2002)
Lowest recorded: 901.28 ft (10/07/1996)
Recorded range: 2.71 ft
Average water level: 902.01 ft
Last reading: 901.54 (10/14/2003)
OHW elevation: 902.5 ft
Datum: 1929 (ft)

Annual Averages	Elevation (ft)
1991	
1992	
1993	
1994	
1995	
1996	901.70
1997	901.90
1998	901.85
1999	902.13
2000	901.79
2001	902.18
2002	902.39
2003	902.07
Total Average	901.99

	Total Precip (in)
1965	
1966	
1967	
1968	
1969	
1970	
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	30.39
1981	31.26
1982	31.24
1983	30.29
1984	36.74

Date	Elevation (ft)
6/4/1991	902.57
1/13/1992	901.93
6/10/1992	901.33
4/30/1996	901.96
5/8/1996	902.04
5/23/1996	902.44
6/4/1996	901.86
6/20/1996	901.86
7/11/1996	901.70
7/23/1996	901.75
8/8/1996	901.68
8/28/1996	901.50
9/13/1996	901.32
9/25/1996	901.28
10/7/1996	901.28
10/21/1996	901.40
4/7/1997	902.29

1985	32.11
1986	35.72
1987	21.92
1988	25.62
1989	23.28
1990	34.72
1991	39.41
1992	25.61
1993	38.00
1994	34.65
1995	42.41
1996	31.87
1997	27.08
1998	30.56
1999	31.96
2000	26.70
2001	33.00
2002	41.50
2003	26.53

4/16/1997	901.99
4/24/1997	901.85
5/5/1997	901.93
5/22/1997	901.85
6/5/1997	901.72
6/20/1997	901.55
7/7/1997	902.14
7/16/1997	902.43
7/31/1997	902.13
8/13/1997	901.73
8/27/1997	901.75
9/16/1997	901.69
10/17/1997	901.83
10/29/1997	901.75
11/6/1997	901.82
4/7/1998	902.59
4/17/1998	902.16
4/28/1998	901.87
5/11/1998	901.83
5/26/1998	901.79

6/8/1998	901.92
6/22/1998	902.07
7/7/1998	902.30
7/8/1998	902.27
7/13/1998	902.05
8/5/1998	901.77
8/19/1998	901.71
8/31/1998	901.75
9/14/1998	901.57
9/28/1998	901.54
10/21/1998	901.50
10/23/1998	901.71
4/15/1999	902.39
4/20/1999	902.47
5/11/1999	902.26
5/26/1999	902.33
6/10/1999	902.32
6/23/1999	902.27
7/6/1999	902.19
7/19/1999	901.89
8/4/1999	902.29
8/24/1999	902.43
9/8/1999	902.07
9/23/1999	901.87
10/4/1999	901.75
10/20/1999	901.71
10/25/1999	901.69
4/7/2000	901.97
4/12/2000	901.91
5/23/2000	901.81
6/8/2000	902.11
6/22/2000	901.91

8/14/2001	901.53
8/28/2001	901.59
9/13/2001	901.54
9/28/2001	901.56
10/17/2001	901.62
4/17/2002	902.61
5/10/2002	903.67
5/28/2002	902.01
6/6/2002	902.03
6/26/2002	903.27
7/9/2002	902.09
7/17/2002	902.09
7/29/2002	902.17
8/8/2002	902.45
8/15/2002	902.19
8/20/2002	902.09
8/27/2002	902.29
9/6/2002	902.73
9/10/2002	902.73
9/18/2002	902.19
9/25/2002	902.03
10/1/2002	902.05
10/11/2002	902.97
10/16/2002	902.53
10/25/2002	902.31
10/29/2002	902.25
11/5/2002	902.13
11/13/2002	902.09
4/15/2003	902.02
5/6/2003	902.22
5/16/2003	902.72
5/29/2003	902.16

7/6/2000	901.79
7/19/2000	902.15
7/31/2000	901.85
8/10/2000	901.69
8/22/2000	901.67
8/29/2000	901.74
9/14/2000	901.75
9/25/2000	901.64
9/28/2000	901.61
10/9/2000	901.53
10/26/2000	901.57
4/18/2001	902.70
4/27/2001	903.34
5/15/2001	902.09
5/30/2001	902.08
6/7/2001	901.88
6/20/2001	902.44
6/28/2001	902.12
7/10/2001	901.74
7/25/2001	901.74
8/7/2001	901.67

4/15/2003	902.02
5/6/2003	902.22
5/16/2003	902.72
5/29/2003	902.16
6/11/2003	902.10
6/27/2003	903.99
7/11/2003	902.22
7/23/2003	901.96
8/6/2003	901.78
8/21/2003	901.66
9/4/2003	901.46
9/18/2003	901.56
10/1/2003	901.52
10/14/2003	901.54