

Lake Conservation Notes

Northeast Glacial Lakes Watershed Project

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Blue Dog Lake Elevations 1934—2018

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|----------------|----------------|----------------|--------|----------------|--------|
| August 1934 | 1782.2 | November 1956 | 1786.8 | September 1990 | 1799.7 |
| June 1935 | 1782.6 | September 1956 | 1786.9 | May 1991 | 1800.3 |
| October 1935 | 1781.3* | April 1959 | 1787.1 | October 1991 | 1800.1 |
| May 1936 | 1782.5 | April 1960 | 1788.2 | April 1992 | 1800.3 |
| November 1936 | 1781.6 | June 1961 | 1787.4 | September 1992 | 1800.0 |
| May 1937 | 1786.3 | December 1961 | 1786.7 | May 1993 | 1800.3 |
| October 1937 | 1784.2 | June 1962 | 1787.9 | September 1993 | 1800.5 |
| June 1938 | 1785.0 | December 1962 | 1787.3 | May 1994 | 1800.7 |
| October 1938 | 1784.2 | May 1963 | 1787.5 | September 1994 | 1800.2 |
| May 1939 | 1784.8 | May 1964 | 1787.3 | May 1995 | 1800.8 |
| November 1939 | 1783.9 | October 1964 | 1787.4 | October 1995 | 1800.5 |
| May 1940 | 1785.4 | May 1966 | 1787.8 | May 1996 | 1800.7 |
| October 1940 | 1784.4 | November 1966 | 1787.3 | September 1996 | 1800.0 |
| June 1941 | 1784.8 | May 1967 | 1787.8 | April 1997 | 1802.3 |
| November 1941 | 1784.0 | May 1968 | 1787.7 | October 1997 | 1800.5 |
| May 1942 | 1784.1 | November 1968 | 1787.3 | April 1998 | 1802.0 |
| November 1942 | 1785.2 | May 1969 | 1787.3 | June 1998 | 1803.0 |
| June 1943 | 1784.9 | September 1969 | 1786.6 | September 1998 | 1802.5 |
| November 1943 | 1784.8 | May 1970 | 1788.0 | April 1999 | 1803.6 |
| July 1944 | 1784.8 | December 1970 | 1787.1 | September 1999 | 1803.3 |
| November 1944 | 1784.4 | November 1976 | 1785.3 | May 2000 | 1802.8 |
| May 1945 | 1784.9 | May 1980 | 1800.1 | November 2000 | 1801.3 |
| October 1945 | 1783.7 | November 1980 | 1799.5 | June 2001 | 1803.0 |
| May 1946 | 1785.9 | April 1981 | 1800.2 | October 2001 | 1801.5 |
| September 1946 | 1784.7 | May 1983 | 1800.2 | May 2002 | 1801.6 |
| May 1947 | 1785.1 | October 1983 | 1799.7 | October 2002 | 1800.3 |
| May 1948 | 1784.9 | June 1984 | 1800.3 | April 2003 | 1800.4 |
| May 1949 | 1784.8 | August 1984 | 1800.2 | September 2003 | 1799.9 |
| November 1949 | 1786.4 | May 1985 | 1800.3 | May 2004 | 1799.9 |
| May 1950 | 1787.5 | October 1985 | 1800.3 | September 2004 | 1799.9 |
| January 1951 | 1787.0 | May 1986 | 1800.7 | May 2005 | 1800.0 |
| May 1951 | 1787.5 | September 1986 | 1800.8 | September 2005 | 1799.8 |
| February 1952 | 1787.2 | April 1987 | 1800.6 | April 2006 | 1800.2 |
| October 1952 | 1786.6 | October 1987 | 1800.0 | September 2006 | 1799.8 |
| November 1953 | 1786.4 | April 1988 | 1800.2 | May 2007 | 1801.3 |
| April 1954 | 1788.5 | September 1988 | 1799.2 | October 2007 | 1800.3 |
| September 1954 | 1786.6 | April 1989 | 1800.2 | May 2008 | 1801.0 |
| May 1955 | 1787.3 | October 1989 | 1799.8 | October 2008 | 1800.6 |
| May 1956 | 1787.4 | May 1990 | 1800.0 | April 2009 | 1802.4 |

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|----------------|-----------------|----------------|---------|--------------|--------|
| September 2009 | 1801.4 | May 2014 | 1802.9 | October 2018 | 1800.9 |
| May 2010 | 1804.4 | October 2014 | 1802.5 | | |
| September 2010 | 1802.8 | April 2015 | 1802.4 | | |
| June 2011 | 1805.8** | October 2015 | 1801.8 | | |
| October 2011 | 1804.6 | April 2016 | 1802.0 | | |
| May 2012 | 1804.5 | September 2016 | 1801.1 | | |
| September 2012 | 1802.8 | April 2017 | 1801.52 | | |
| May 2013 | 1803.0 | October 2017 | 1800.61 | | |
| October 2013 | 1802.5 | May 2018 | 1801.58 | | |

Prior to 1981, Blue Dog Lake had a variable elevation control structure that was built in 1944. This structure allowed the lake elevation to vary between 1799.6 to 1800.35 feet above mean seal level (msl). This structure was replaced with a fixed elevation outlet structure in 1981. The current outlet elevation is set at 1799.93. Blue Dog Lake's Ordinary High Water Mark is 1800.7. The OHWM is determined by shoreline characteristics such as slope, soil, and shoreline vegetation. Over the past fifty years and prior to the construction of the fixed elevation outlet, the lake had undergone several increases in outlet elevation in an attempt to increase the lakes depth. However, by increasing lake elevation increased sedimentation occurred as the new shoreline became established through erosion. This short term solution to increase lake depth actually had detrimental effects over the long term as the lake lost depth to sedimentation. The lake reached a record level of 1805.8 on 3 June 2011.

* Lowest recorded elevation: Oct 1935 - 1781.3

**Highest recorded elevation: June 3, 2011 - 1805.8

Outlet Elevation: 1799.93

Lake elevations are taken every spring and fall by the Water Rights Division of the SD Dept. of Environment and Natural Resources.

