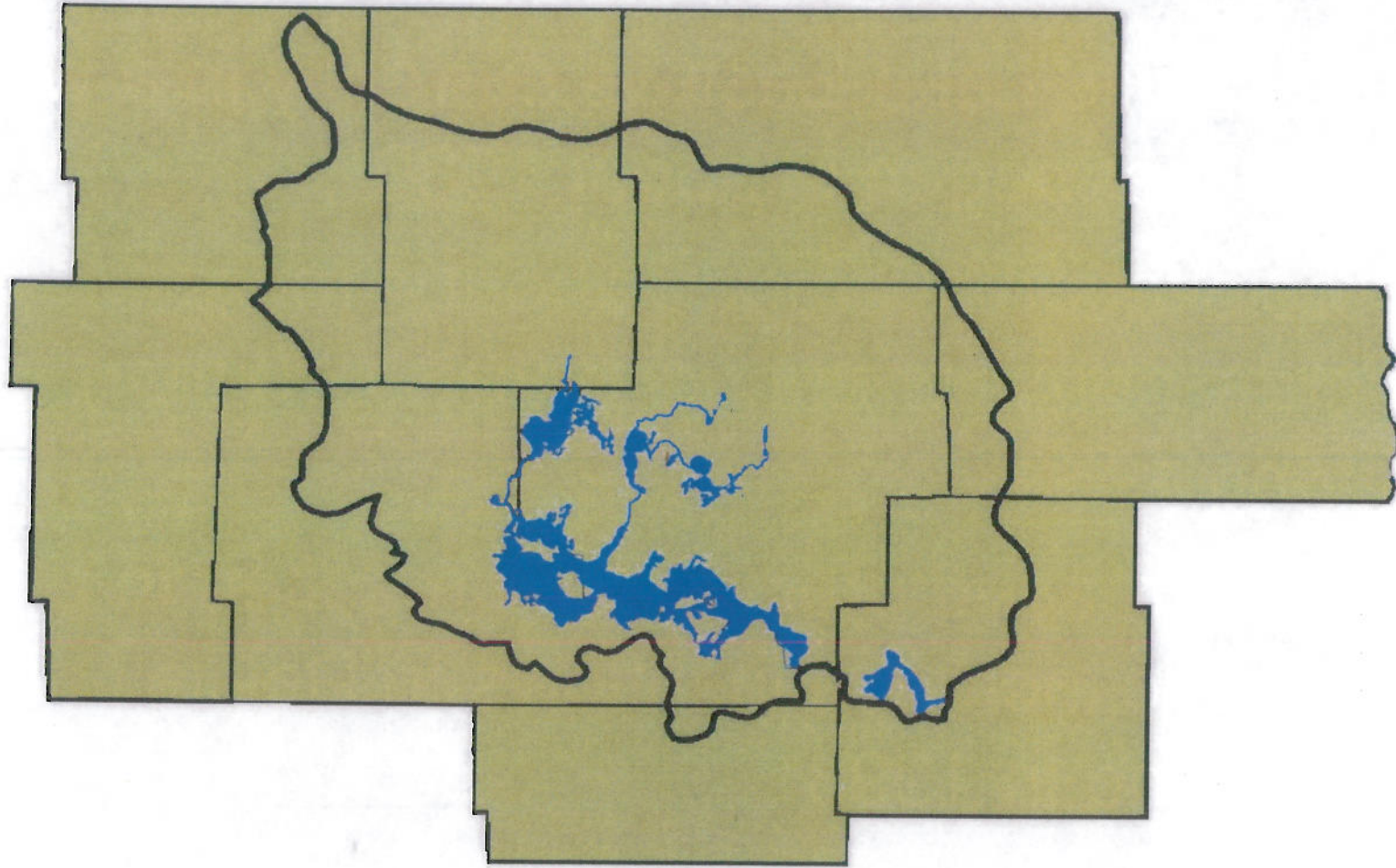


The Devils Lake Basin



- Devils Lake Basin encompasses 3810 Square Miles or 2.5 Million Acres in Northeastern North Dakota.

What has happened?

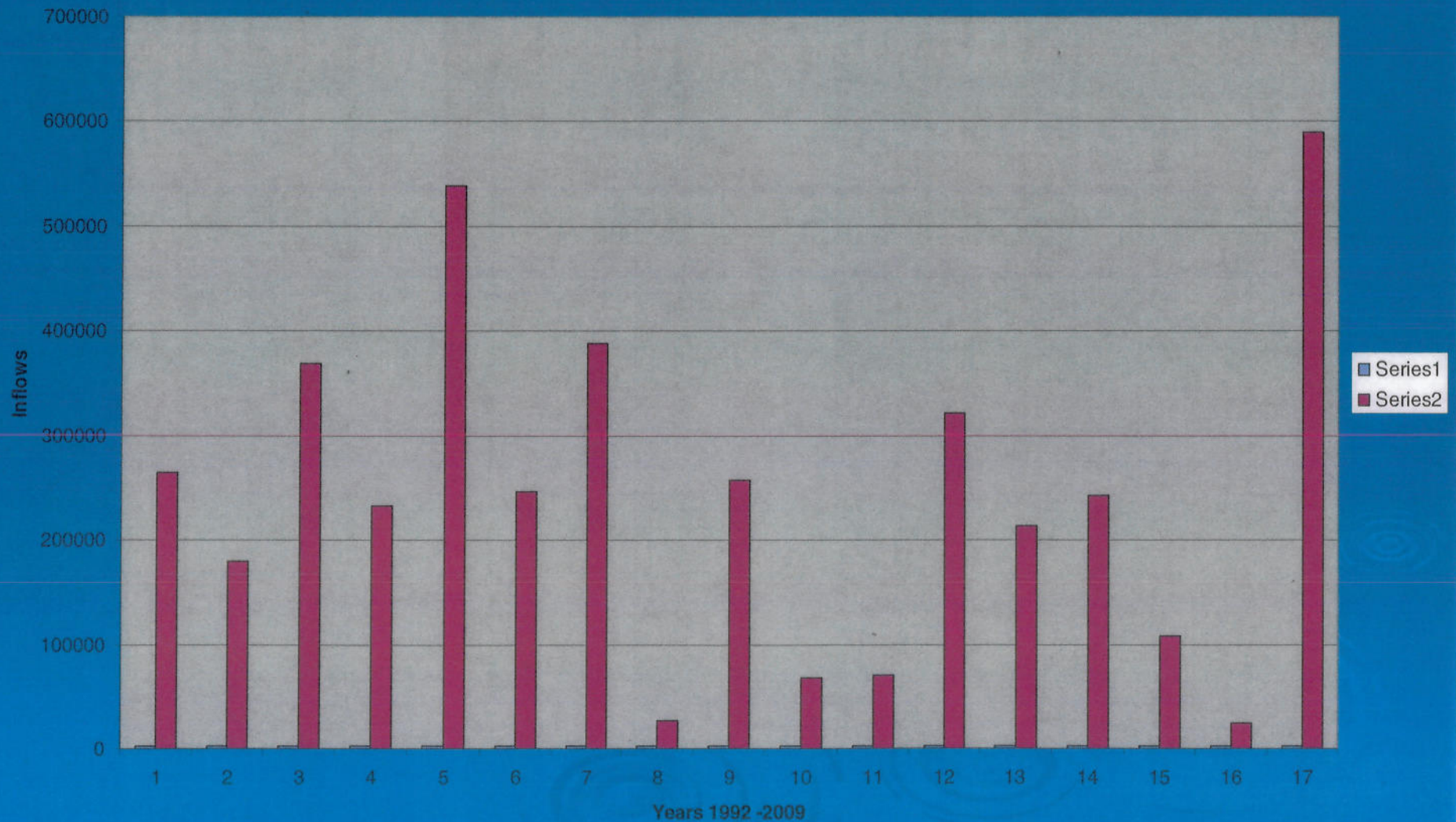
- The Devils Lake Basin is currently in a wet cycle that began in about 1980*.
- Precipitation averaged about 4 more inches per year during 1980–2010 than during 1950–79*.
- The increased precipitation resulted in a dramatic increase in inflows to Devils Lake beginning in 1993*.

- Much of the increase in precipitation during 1980–93 went toward filling soil moisture deficits, the upstream chain of lakes, and the thousands of smaller lakes and wetlands in the upper basin; thus little of the precipitation reached Devils Lake as runoff*.
- Following the summer flood of 1993, most of the lakes and wetlands in the upper basin were full and inflow to Devils Lake increased dramatically*.

*Source USGS

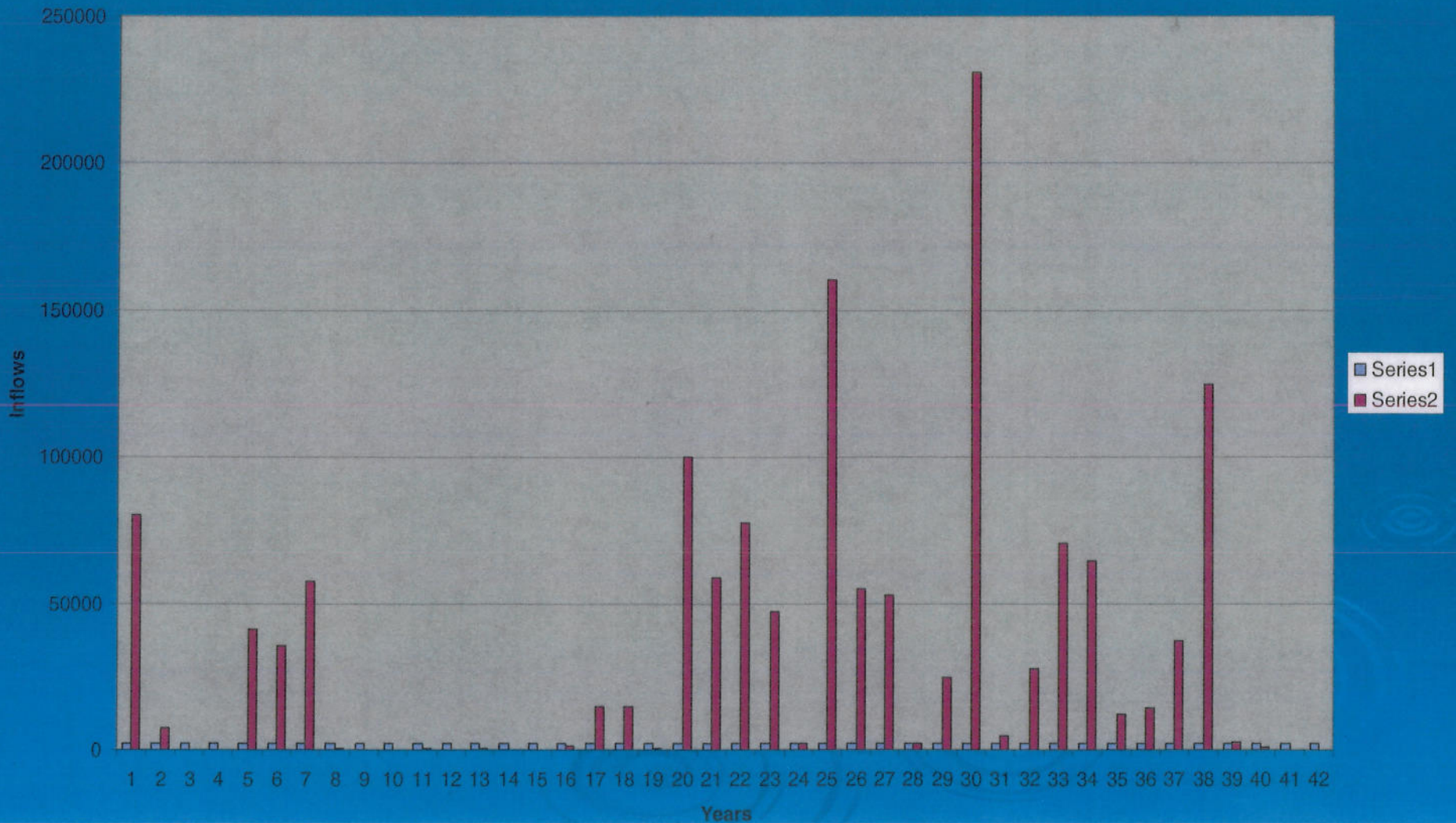
Basin Inflows 1993 -2009

Inflows

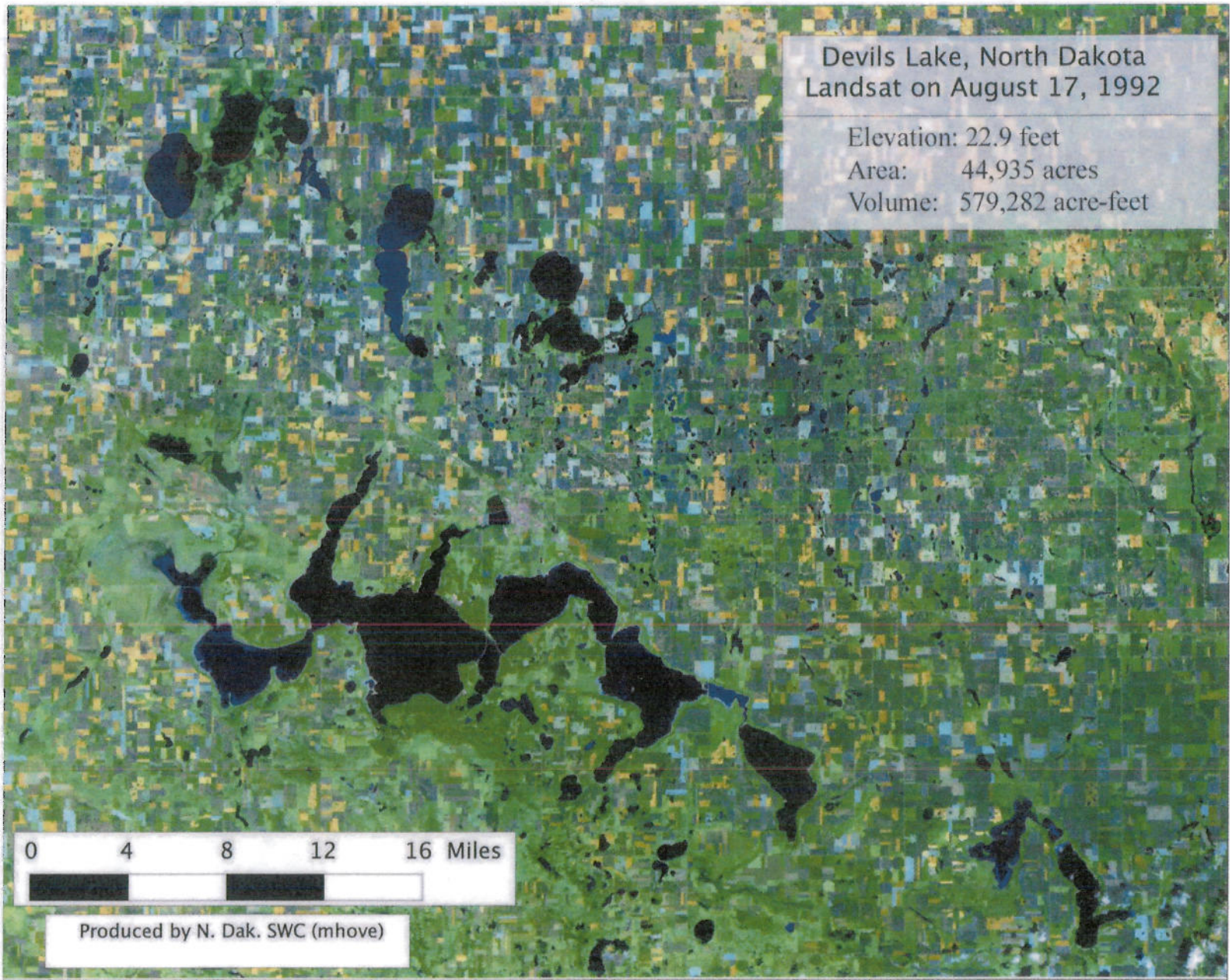


Basin Inflows 1950 - 1991

Inflows 1950 - 1991



**PICTURES ARE WORTH
A 1000 WORDS!!!**

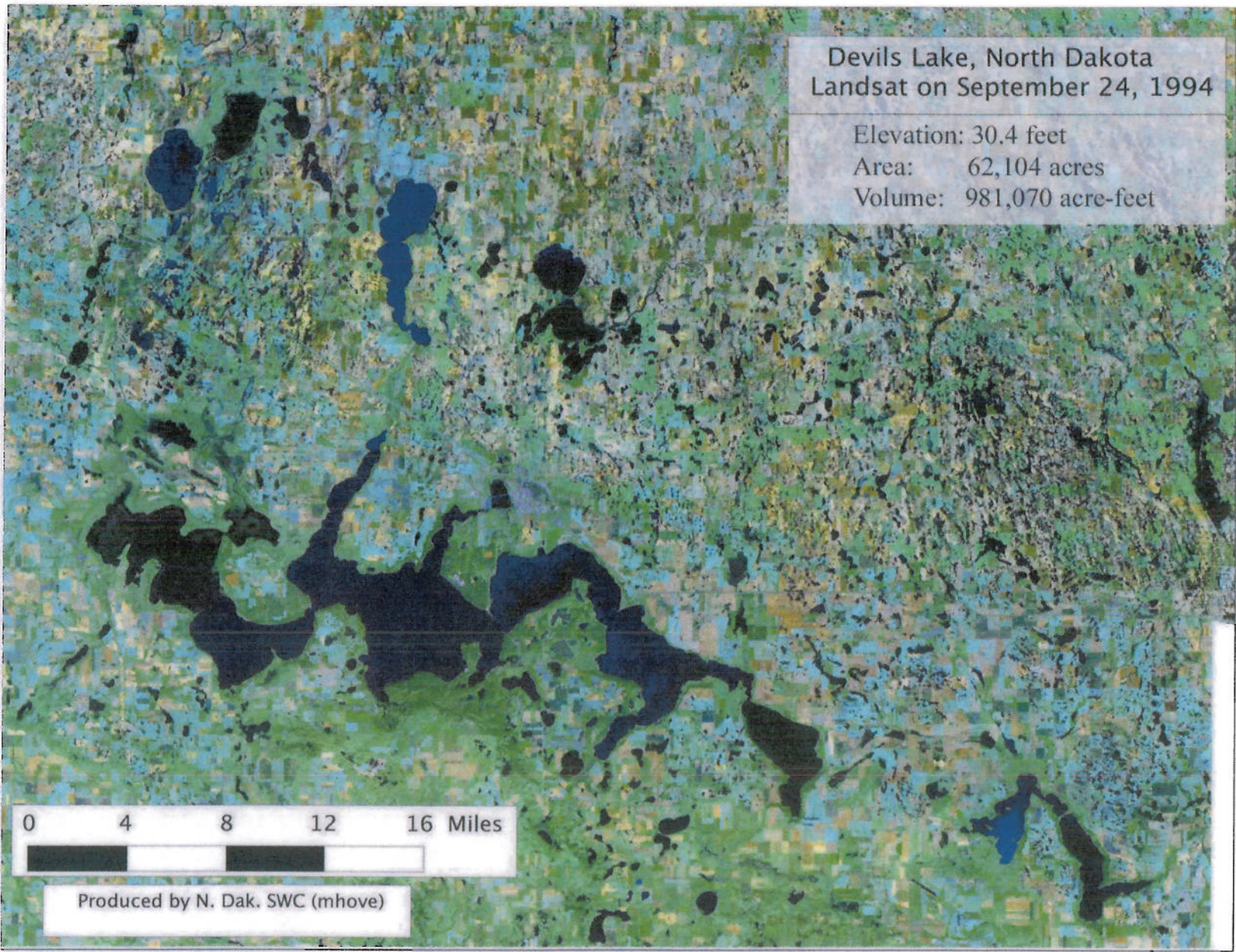


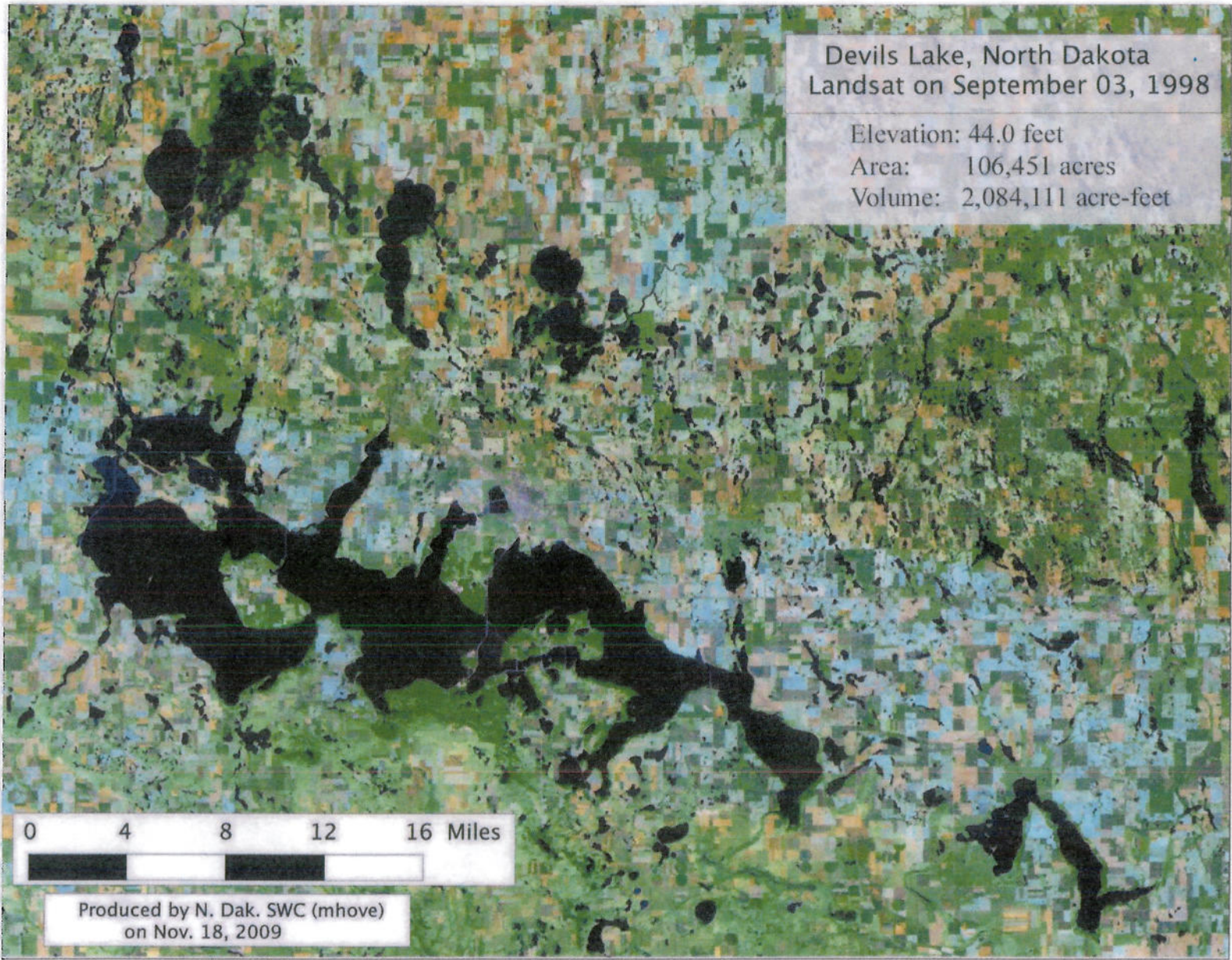
Devils Lake, North Dakota
Landsat on August 17, 1992

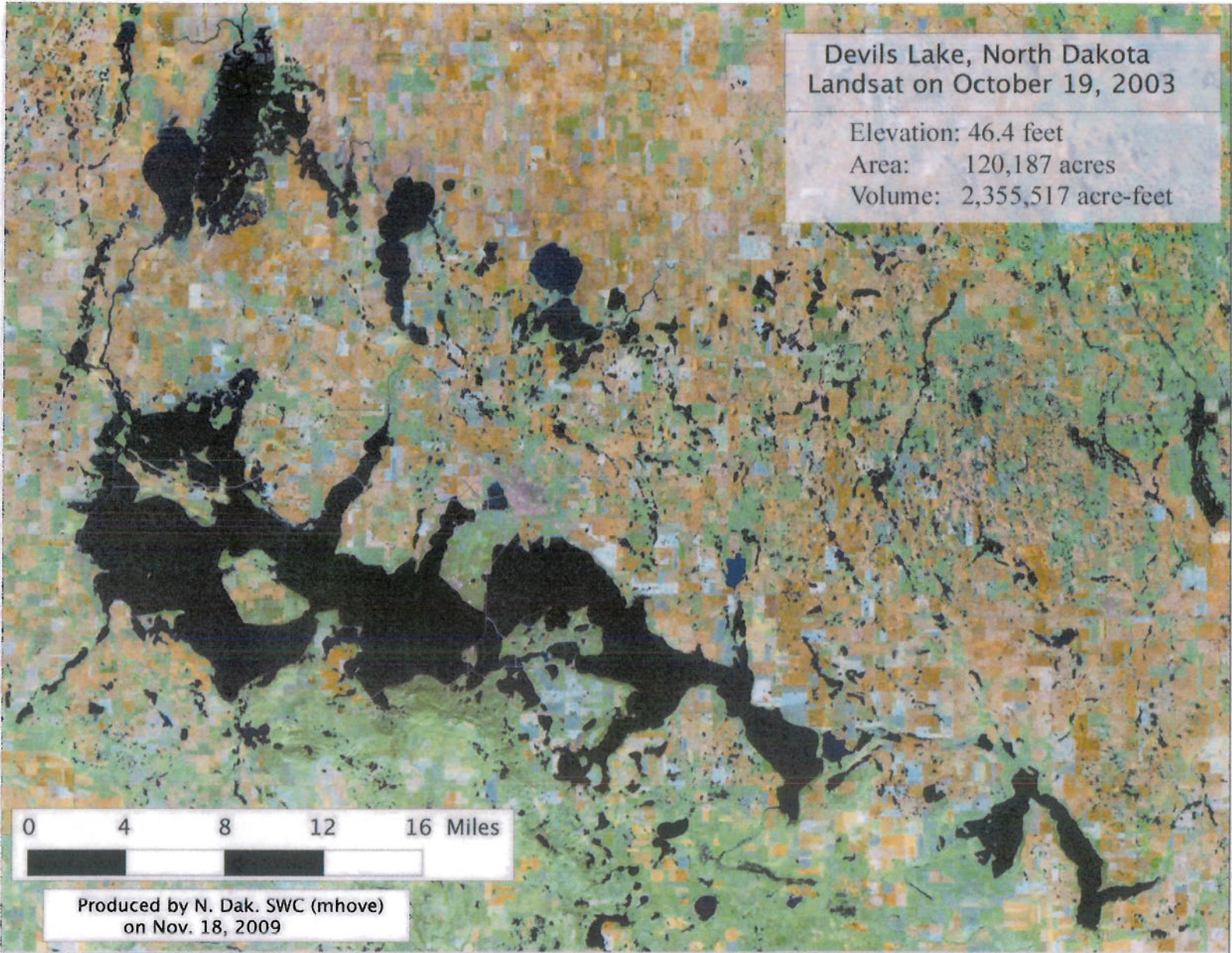
Elevation: 22.9 feet
Area: 44,935 acres
Volume: 579,282 acre-feet

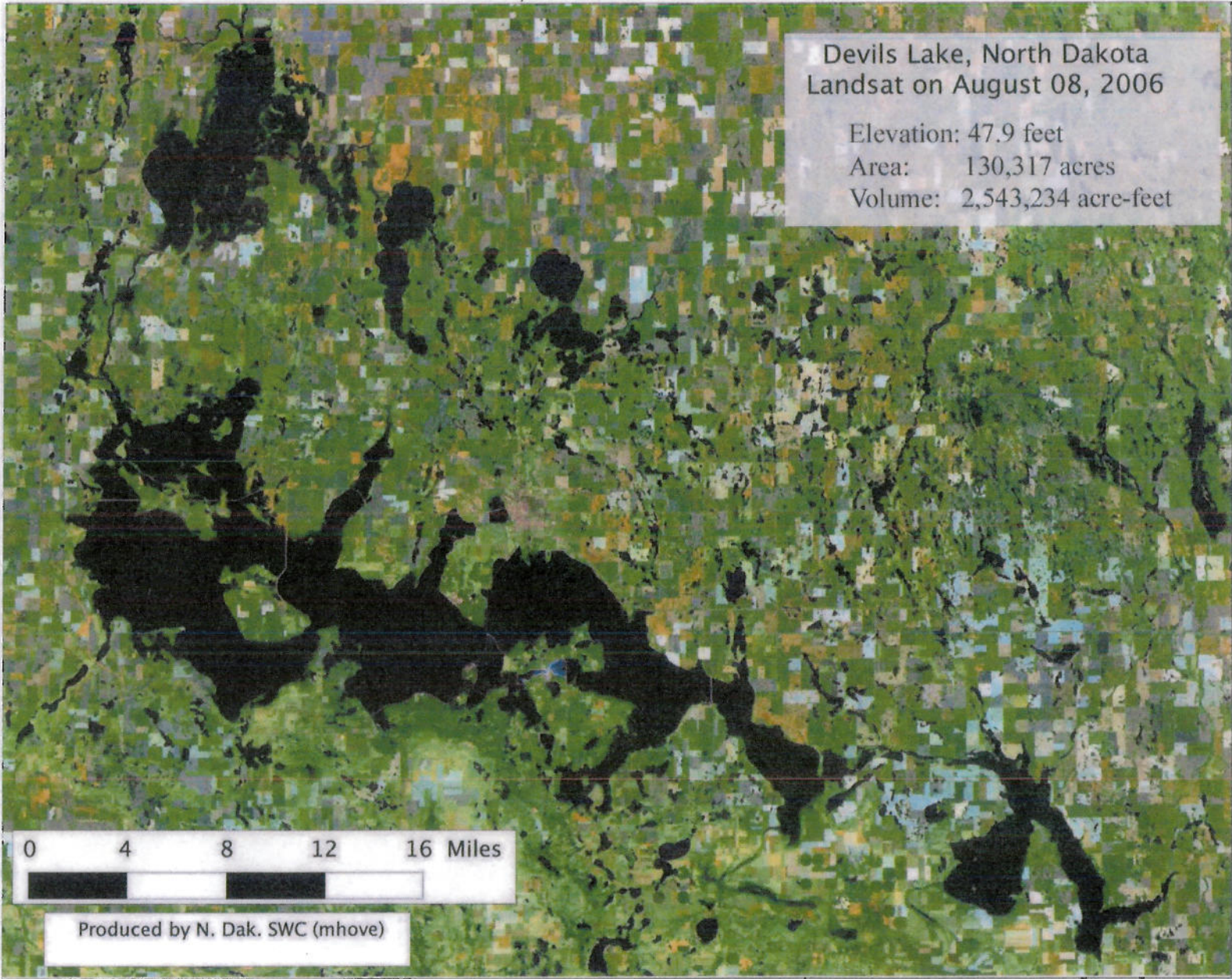
0 4 8 12 16 Miles

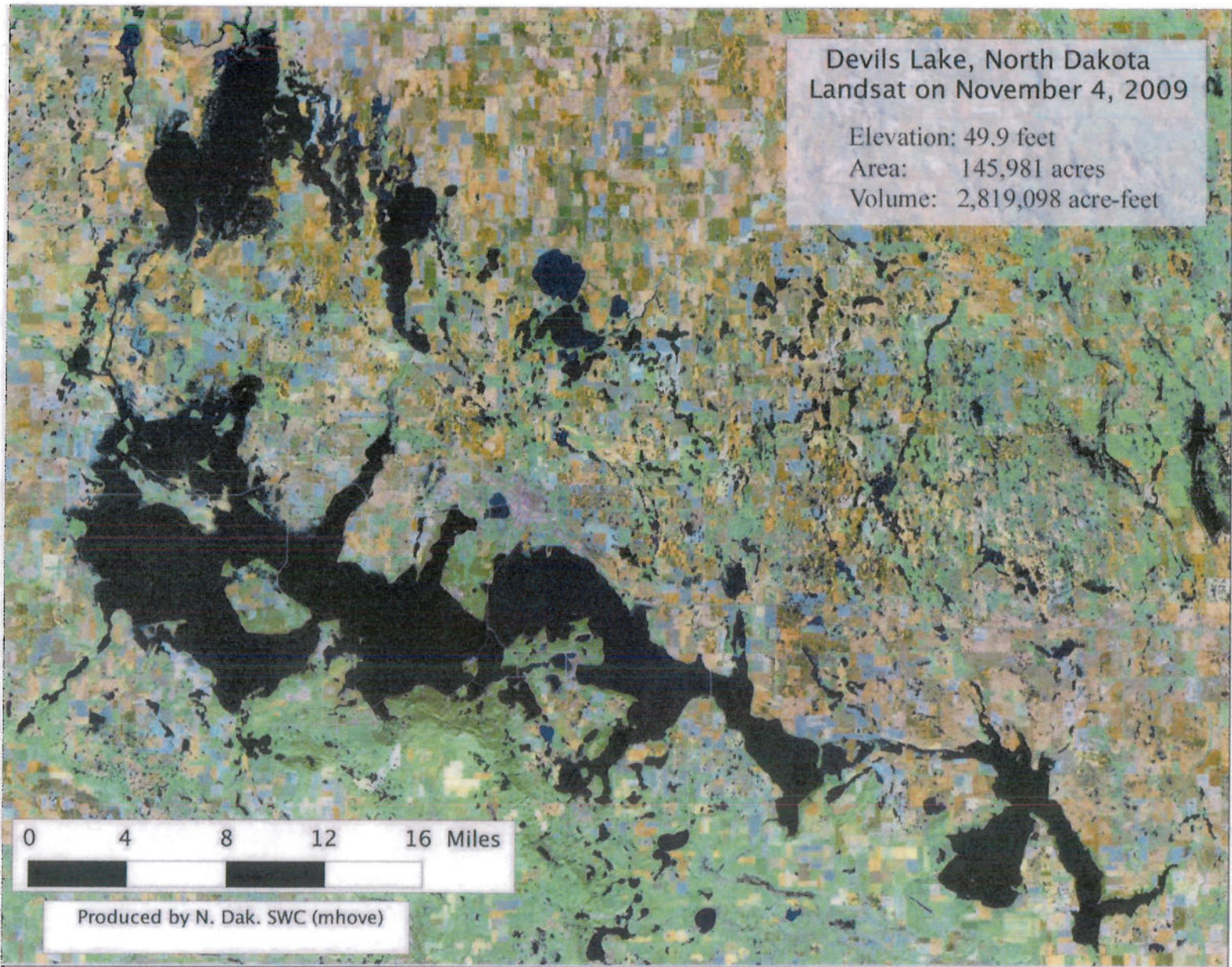
Produced by N. Dak. SWC (mhove)









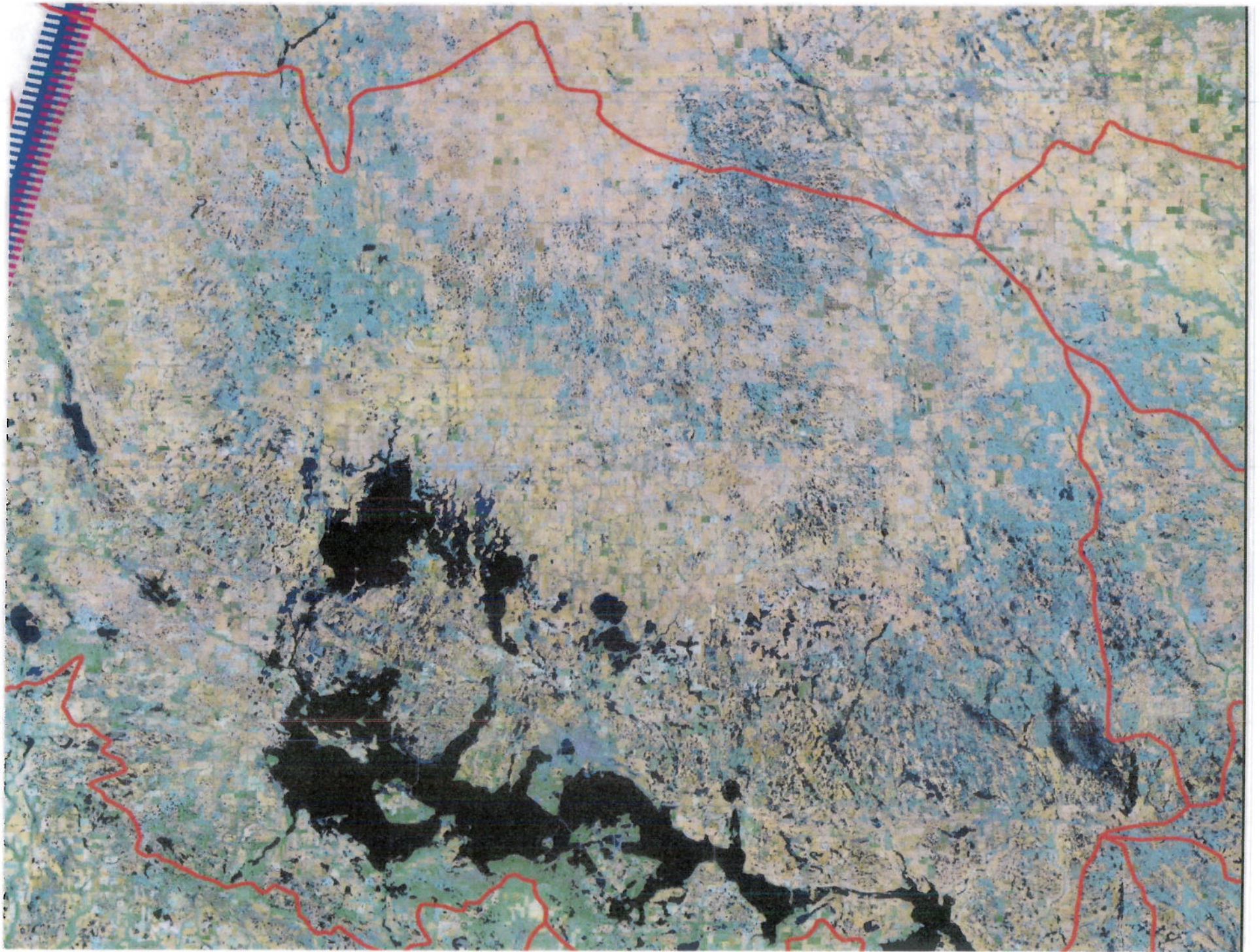


Devils Lake, North Dakota
Landsat on November 4, 2009

Elevation: 49.9 feet
Area: 145,981 acres
Volume: 2,819,098 acre-feet

0 4 8 12 16 Miles

Produced by N. Dak. SWC (mhove)



BNSF RAILROAD BRIDGE EAST OF CHURCHS FERRY



CITY OF CHURCHS FERRY



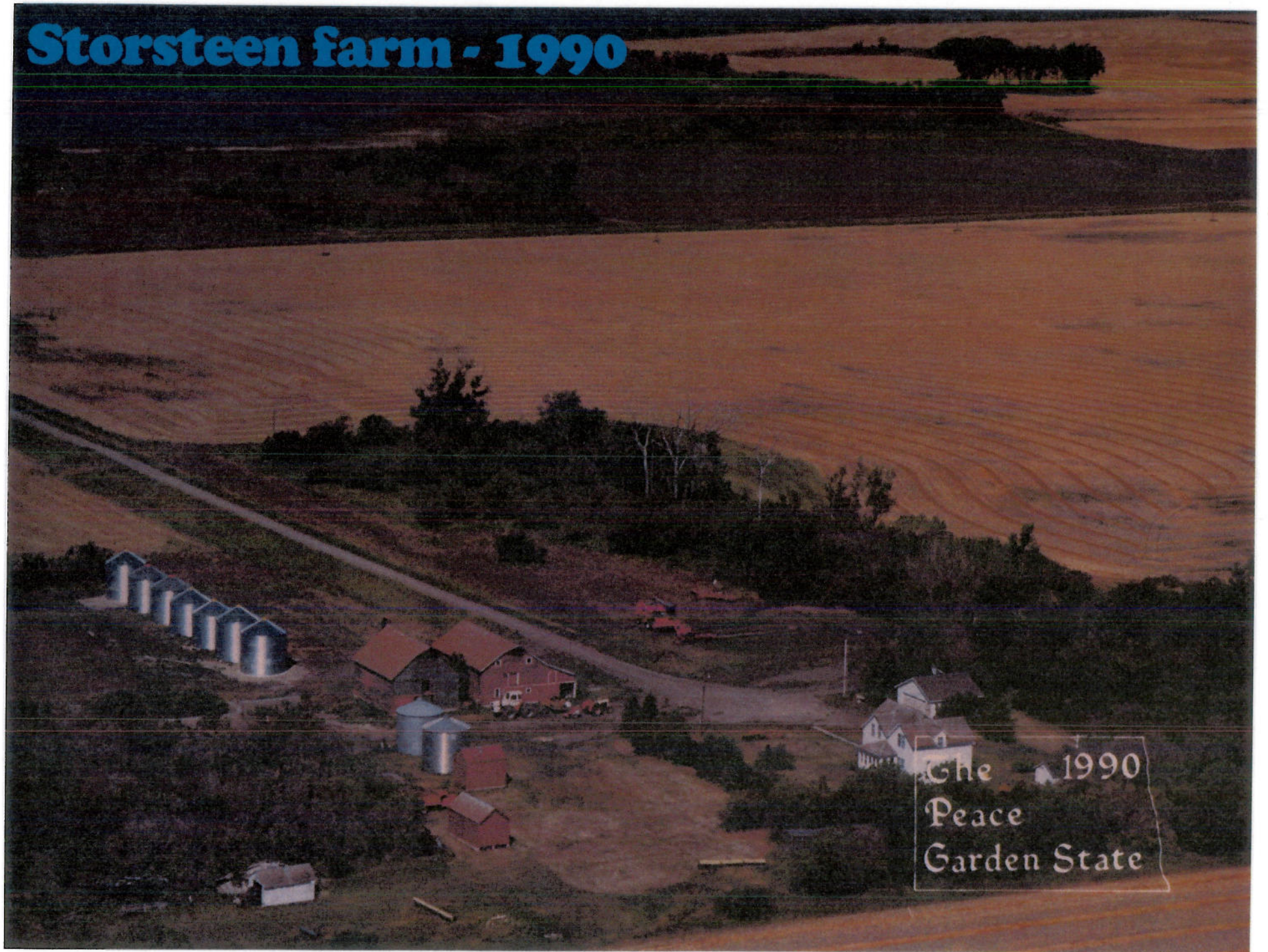
CITY OF MINNEWAUKAN



FLOODED FARMS



Storsteen farm - 1990



The 1990
Peace
Garden State

Storsteen farm - 2009



FLOODED FARM LANDS!



ROOM FOR MORE WETLANDS?



Site 204103
Top 11/1/12
Larson, Charles Perry, AD
11/1/12 11:44 AM 11/1/12 11:44 AM
Speed 100 MPH

AGRICULTURAL IMPACTS

- For Every Foot of Elevation Increase 9 – 10 Thousand Acres of Farmland LOST!
- Almost 400,000 Acres Lost Within The Basin So Far, 212,588 Acres In Ramsey County Alone!
- Annual Economic Impact of \$83 Million Dollars LOST (Just Ramsey & Benson Counties)!
- 530 Jobs lost!

WHAT IS BEING DONE?

➤ Upper Basin Storage

- ESAP Storage Program: About A 1000 Acre Feet Of Water Is Being Stored On 338 Acres
- Sweetwater/Morrison Storage Program:
- Other Entities Storing Water In The Upper Basin – US Fish & Wildlife, Natural Resource Conservation Service & The North Dakota Natural Resource Trust

DIFFICULTIES IN DOING MORE?

- Closing Drains (legal and/or natural) Would Be Very Difficult & Prohibitively Expensive.
 - ND Supreme Court Upheld The Determination That Drains Did NOT Cause Devils Lake Flooding. (Landowner's Lawsuit)

WOULD STORING MORE WATER HELP?

- Well, the inflow into DL in 2009 was about 590,000 acre-feet. If you assume vertical-sided water storage sites two feet deep you would have needed 295,000 (460 square miles) acres of wetlands to hold the water. Often the 2 feet of evapotranspiration (ET) number is used in figuring how much water would be lost to the atmosphere or through plant respiration/metabolism in a wetland, which in a perfect year, might be accurate. However, in some years, like last year for example, the weather was cooler and cloudier, and as a result ET was quite low. So low, in fact, that despite the fact that after a very wet spring, the summer and fall were dry by post-1993 standards, there was still a greater surface area of water in the DL basin in November of 2009, than there was in November of 2008, which was extremely wet. And, DL never really backed off of the high elevation it reached last spring. The minimal inflows that were seen from June onwards seemed to enough to compensate for any evaporative loss.

BURNING HOMES ALONG THE SHORES OF DEVILS LAKE







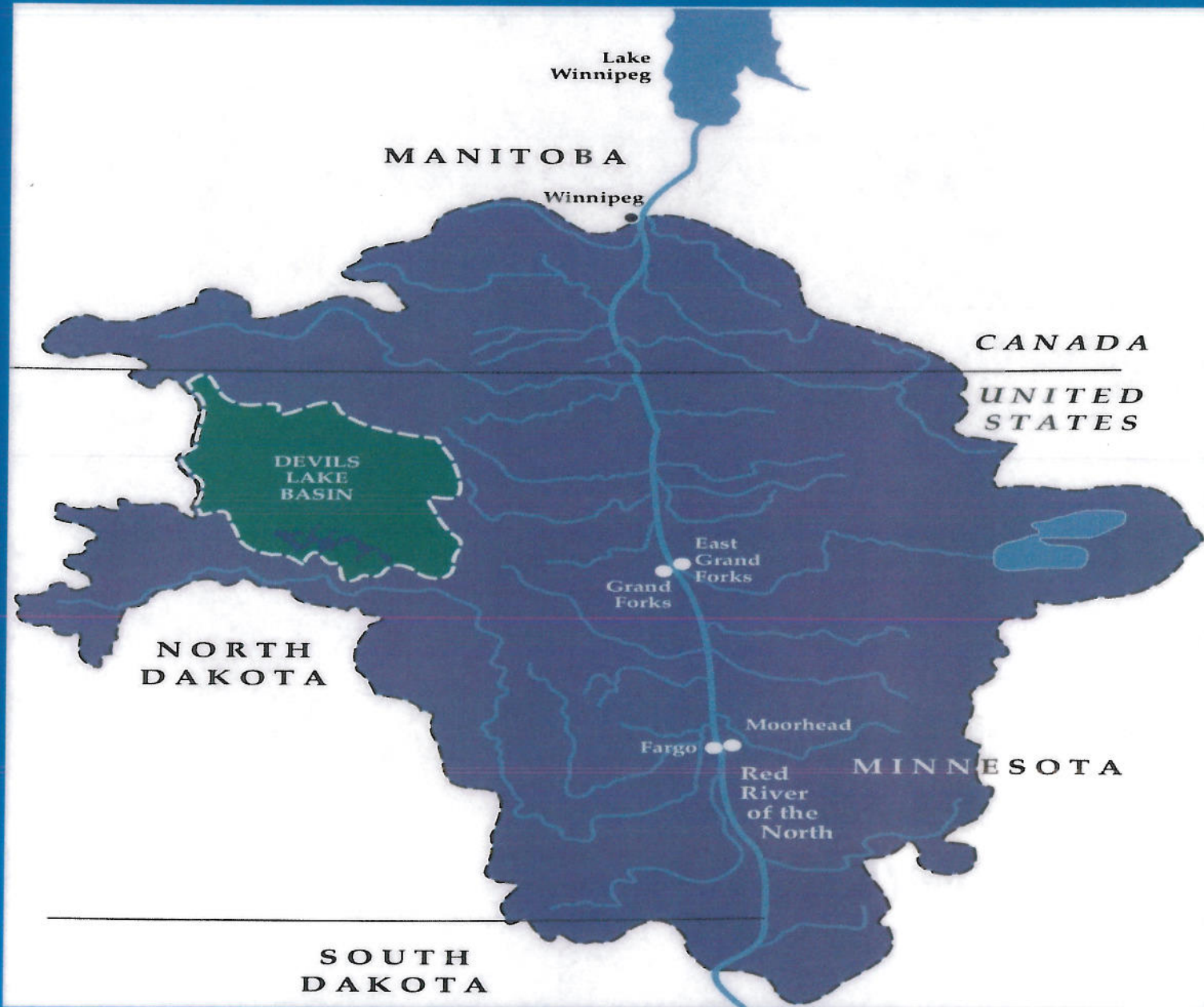
WHAT WE DON'T NEED?

- FALSE PROMISES & FALSE HOPE
- OPPOSITION & IGNORANCE
- MORE HOMES LOST
- MORE ACRES LOST & FARMERS DISPLACED
- **MORE STUDIES!!**

WHAT WE DO NEED?

- UNDERSTANDING & ACCEPTANCE
- A WORKABLE COMPENSTATION PLAN FOR INUDATED FARMLAND
- A COMPREHENSIVE PLAN OF ACTION FOR MOVING MORE WATER OFF THE LAKE

WE ARE ALL A PART OF THE SAME WATER SHED!





Hudson Bay

Alberta

NELSON RIVER
BASIN

Saskatchewan

Manitoba

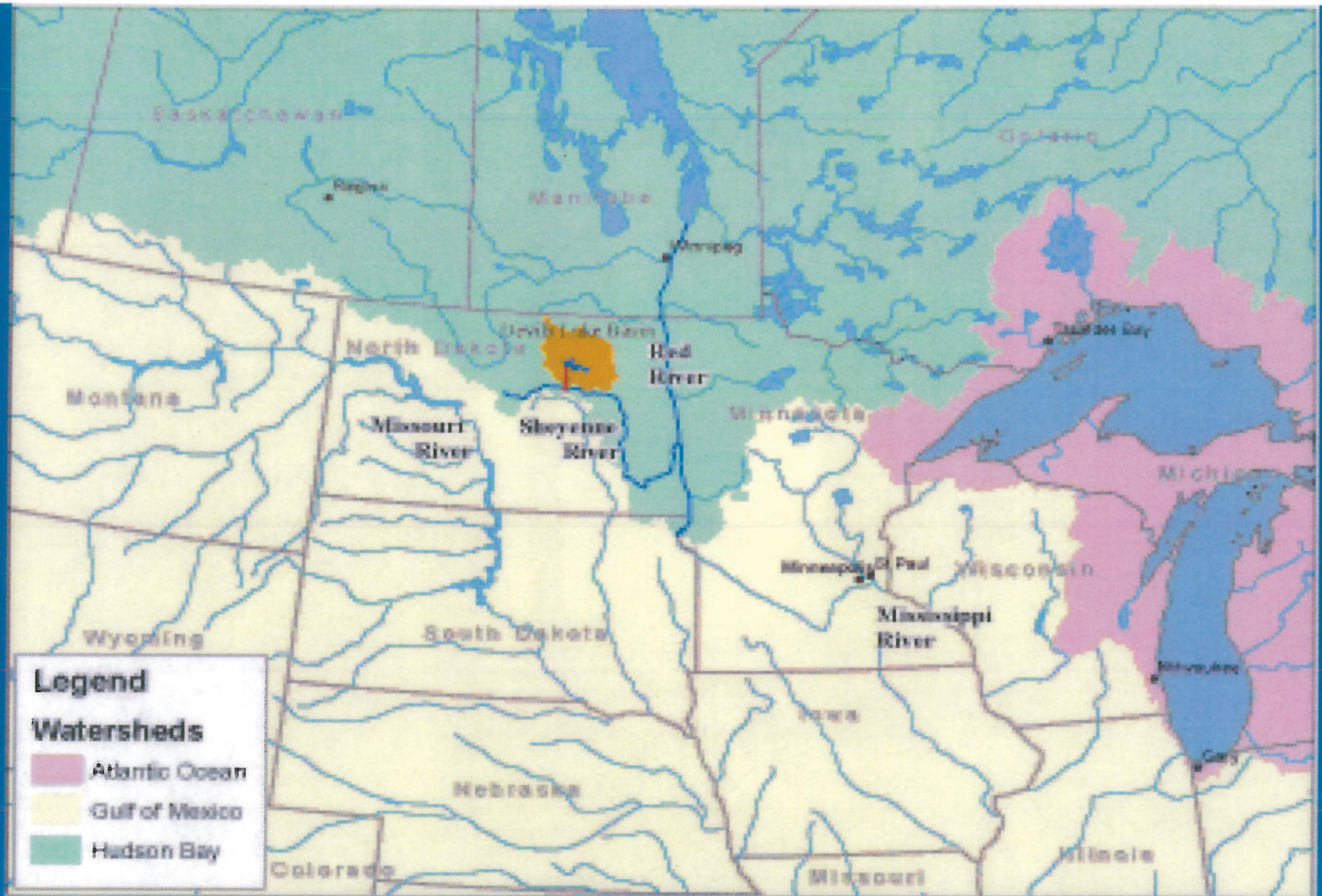
Ontario

MT

ND

MN

**Devils Lake:
sub-basin of the
Nelson River Basin**



➤ Sub-Basin of the Red River Basin & part of the Hudson Bay Water Shed.

2005 Lake Elev 1,448



QUESTIONS?

Contact Information

- Jeff Frith
- Devils Lake Basin Joint Water Resource Board
- www.dlbasin.com
- manager@dlbasin.com
- 701-662-7076