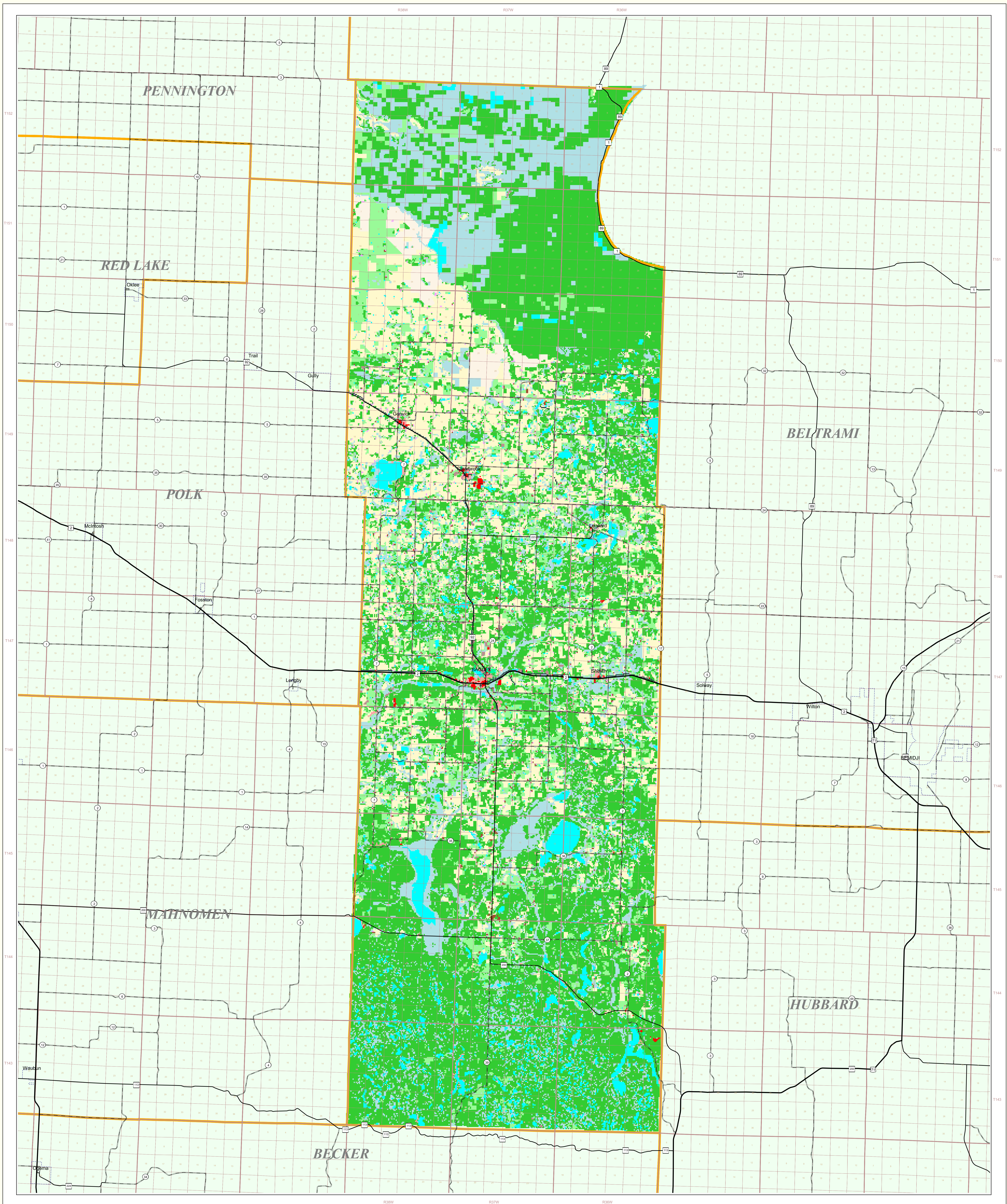


# Clearwater County Land Use and Cover

State of Minnesota

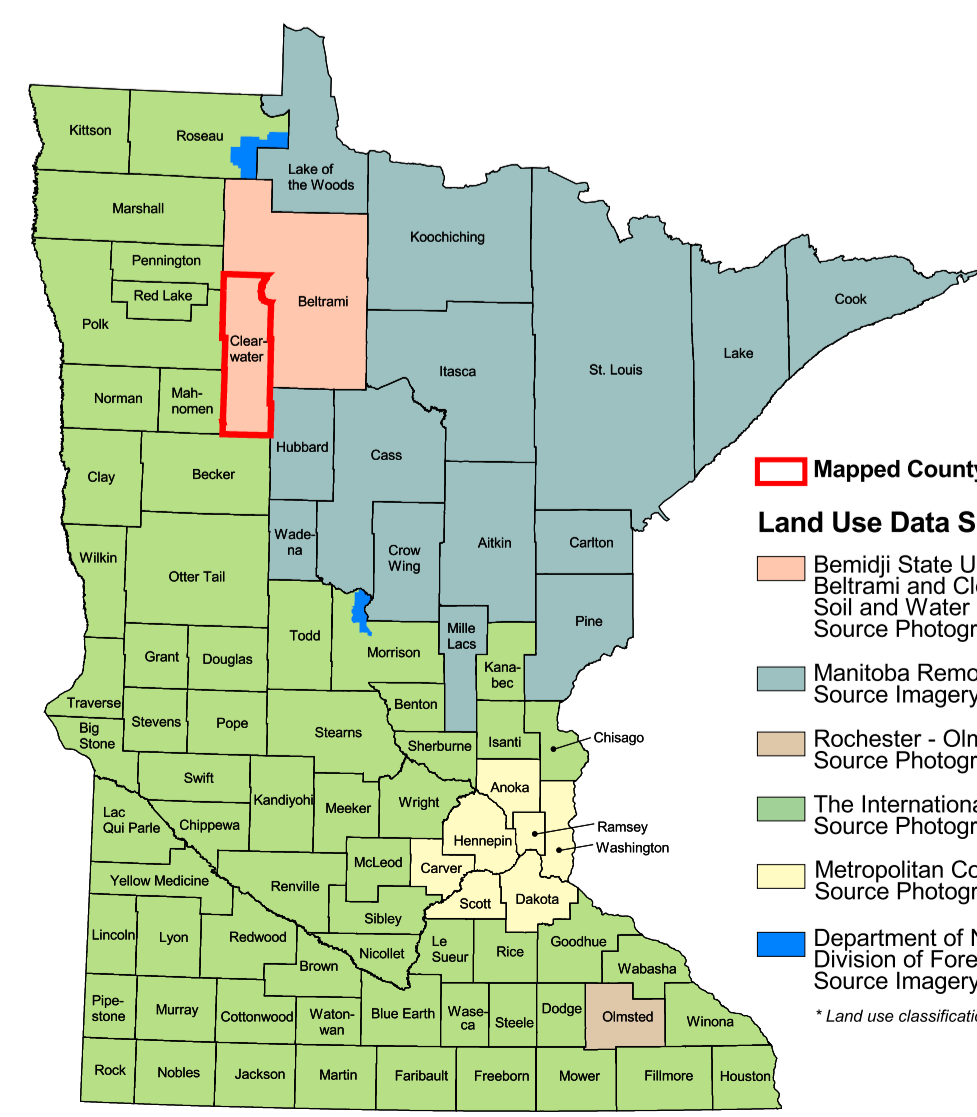
1987



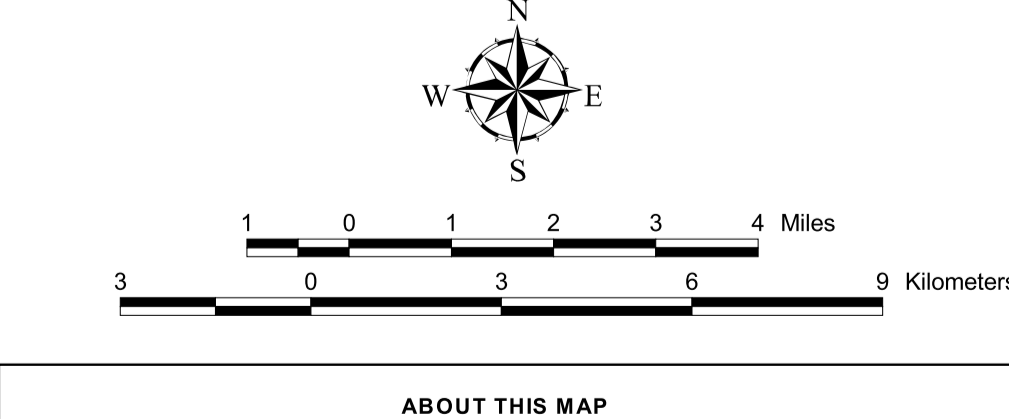
- MAP FEATURES**
- Land Use**
    - Ag-Related
    - Rice Paddies
    - Residential
    - Non-Residential
    - Farmsteads
    - Park/Open
    - Forest
    - Wetland
    - Open Water
    - Institutions
    - Feedlots
    - Extractive
    - Cemeteries
    - Transportation
  - Cities**<sup>1</sup>
    - COUNTY SEAT
    - Other Cities
  - Highways**<sup>2</sup>
    - Interstate Highway
    - U.S. Trunk Highway
    - State Trunk Highway
    - County State-Aid Highway (CSAH)
  - Public Land Survey**<sup>3</sup>
    - State Boundary
    - County Boundary
    - Township & Range
    - Section
    - T34 Township
    - R22W Range & Direction

**Clearwater County Land Use Statistics**  
Source: The Land Management Information Center (LMIC)

DESCRIPTION	ACRES	% ACRES
Ag-Related	117774.9	17.9
Rice Paddies	9738.5	1.3
Residential	3442	0.5
Non-Residential	612.7	0.1
Farmsteads	3597.3	0.6
Park/Open	64695.3	9.8
Forest	348.6	< 0.1
Wetlands	314200.3	47.7
Open Water	110070.5	16.7
Institutions	2959.7	4.5
Feedlots	176.8	< 0.1
Extractive	2074.5	0.3
Cemeteries	505.9	0.1
Transportation	58.9	< 0.1
<b>TOTAL</b>	<b>458,680</b>	<b>100%</b>



- Land Use Data Sources**<sup>4</sup>
- Beltrami State University - Department of Geography, Beltrami and Clearwater County Soil and Water Conservation Districts. Source Imagery Date: 1987
  - Manitowish Watershed Surveying Center. Source Imagery Dates: 1991-1996
  - The International Coalition. Source Imagery Dates: 1988-1990
  - Rochester - Olmsted Planning Department. Source Imagery Date: 1992
  - Metropolitan Council. Source Imagery Date: 1990
  - Department of Natural Resources - Division of Forestry - Resource Assessment. Source Imagery Dates: 1992, 1993 and 1996
- <sup>1</sup> Last use classification only apply between data sources.



**ABOUT THIS MAP**

**Data Sources:** The land use / land cover categories displayed on Beltrami and Clearwater county maps were derived from two sources. For a portion of these counties, land use / land cover was derived from 1:50,000 black-and-white air photos taken in 1969. More up-to-date land use / land cover categories were derived from sources that included the U. S. Department of Agriculture, Agricultural Stabilization and Conservation Service's (ASCS) 35mm color aerial photography (printed at 1:24,000) taken in 1986.

**Data Interpretation and Computerization:** Soil and Water Conservation District (SWCD) staff identified areas in these counties where little or no land use change occurred between 1969 and 1986. This included most of the Red Lake Reservation and some areas north of Red Lake. In these areas, the 1969 land use data was left unchanged. The 1989 data was taken from the MADM 40 acre raster dataset interpreted and encoded by University of Minnesota students in the early 1970's. It is distinguishable from updated areas on the map since it appears as 40 acre blocks of homogeneous land use.

Land use / land cover information for areas where land use change had occurred between 1989 and 1996 was encoded in a 100-meter (0.6-acre) raster format. Clearwater County land use interpretations were performed by SWCD staff and were then field-verified. Beltrami County land use interpretations were performed by Beltrami State University students working under the direction of SWCD staff. The Beltrami interpretations were not field-verified.

Later review of this data has indicated that a common misclassification occurred, especially in Beltrami County, between the wetland and cultivated agriculture categories. This happened in areas where wetlands containing reed canary grass were confused with wheat production.

**On-line documentation:** <http://luc.lmic.state.mn.us/metadata/bsuuse.htm>

**Credits and Acknowledgements**

Beltrami and Clearwater county land use data provided by:  
Beltrami State University - Department of Geography  
Beltrami and Clearwater County  
Soil and Water Conservation Districts

**Map Projection:** UTM, Extended Zone 15  
**Datum:** NAD83

**Liability Statement**  
The Land Management Information Center (LMIC) does not warrant the results you may obtain by using this map. This map is provided "as is" without express or implied warranties, including warranties of merchantability and fitness. In no event will LMIC be liable for any consequential, incidental or special damages, including any lost profits or lost savings, even if a LMIC representative has been advised of the possibility of such damages or any other claim by any third party.

**Distribution Information**  
This map was prepared in April, 1999. Both the map and the data used to create it are available from the Land Management Information Center at Minnesota Planning.

You may also view a generalized, interactive land use map of Minnesota, along with detailed information about land use data at:  
<http://mapserver.lmic.state.mn.us/landuse>

**For further assistance, or to order copies of this map, contact:**

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<sup>1</sup> Beltrami State University - Department of Geography, Beltrami and Clearwater County Soil and Water Conservation Districts. Source Imagery Date: 1987

<sup>2</sup> U.S. Bureau of Census, 1995

<sup>3</sup> Minnesota Department of Transportation, 1987-1988

<sup>4</sup> Produced by the Minnesota Land Management Information Center from U.S. Geological Survey (USGS) 1:50,000 scale, 30m spatial resolution maps published between 1977 and 1986.