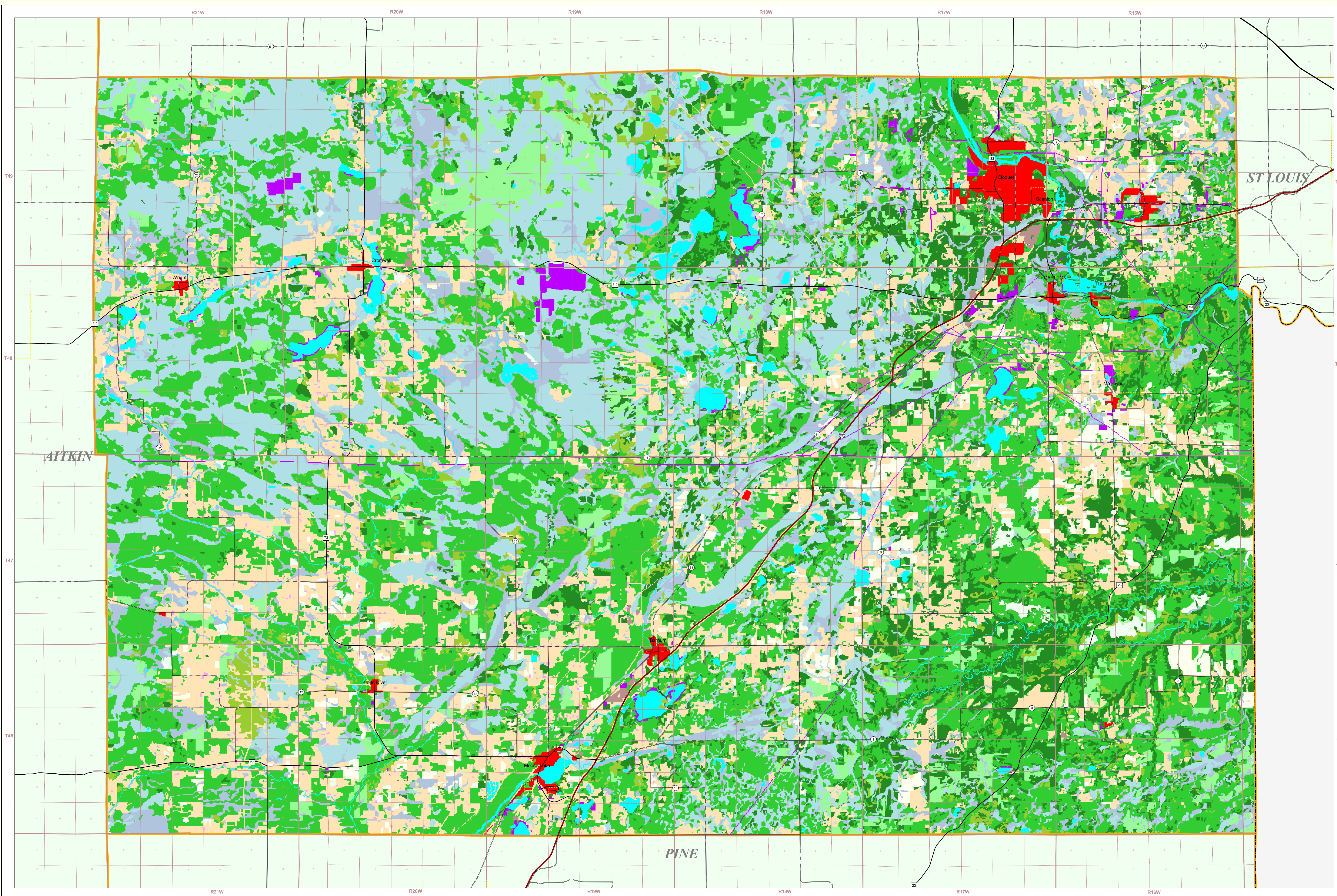


Carlton County Land Use and Cover

State of Minnesota

June 13, 1996



MAP FEATURES

Land Use

- Urban/Industrial
- Farmsteads and Rural Residences
- Other Rural Developments
- Cultivated Land
- Grassland
- Shrubby Grassland
- Regeneration/Young Forest
- Mixed Forest
- Deciduous Forest
- Coniferous Forest
- Wetlands: Bogs
- Wetlands: Marsh and Fans
- Water
- Gravel Pits and Open Mines
- Bare Rock

Cities

- COUNTY SEAT
- Other Cities
- Municipal Boundary

Highways

- Interstate Highway
- U.S. Trunk Highway
- State Trunk Highway
- County State-Aid Highway (CSAH)

Public Land Survey

- State Boundary
- County Boundary
- Township & Range Section
- T34 Township
- R25W Range & Direction

Data Sources

1. Minnesota Remote Sensing Centre
Source Imagery Dates: 1981-1996

2. The Minnesota Land Management Information Center from U.S. Geological Survey (USGS) 1:250,000 scale, 30x30' U.S. Bureau of the Census, 1996

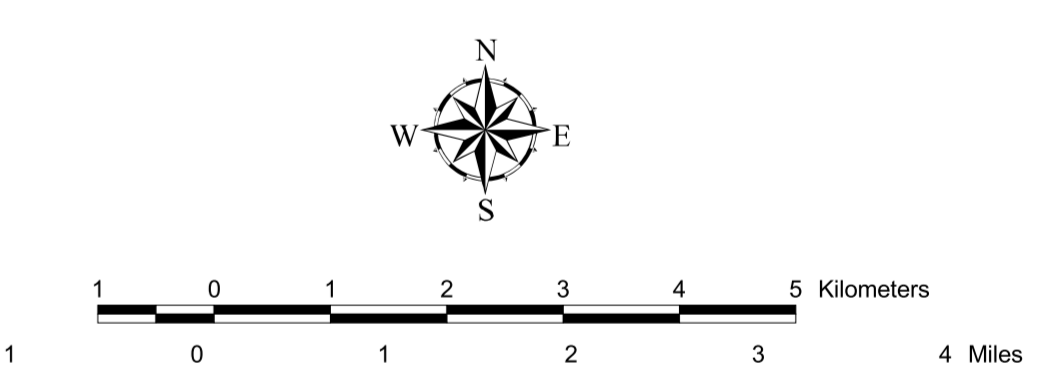
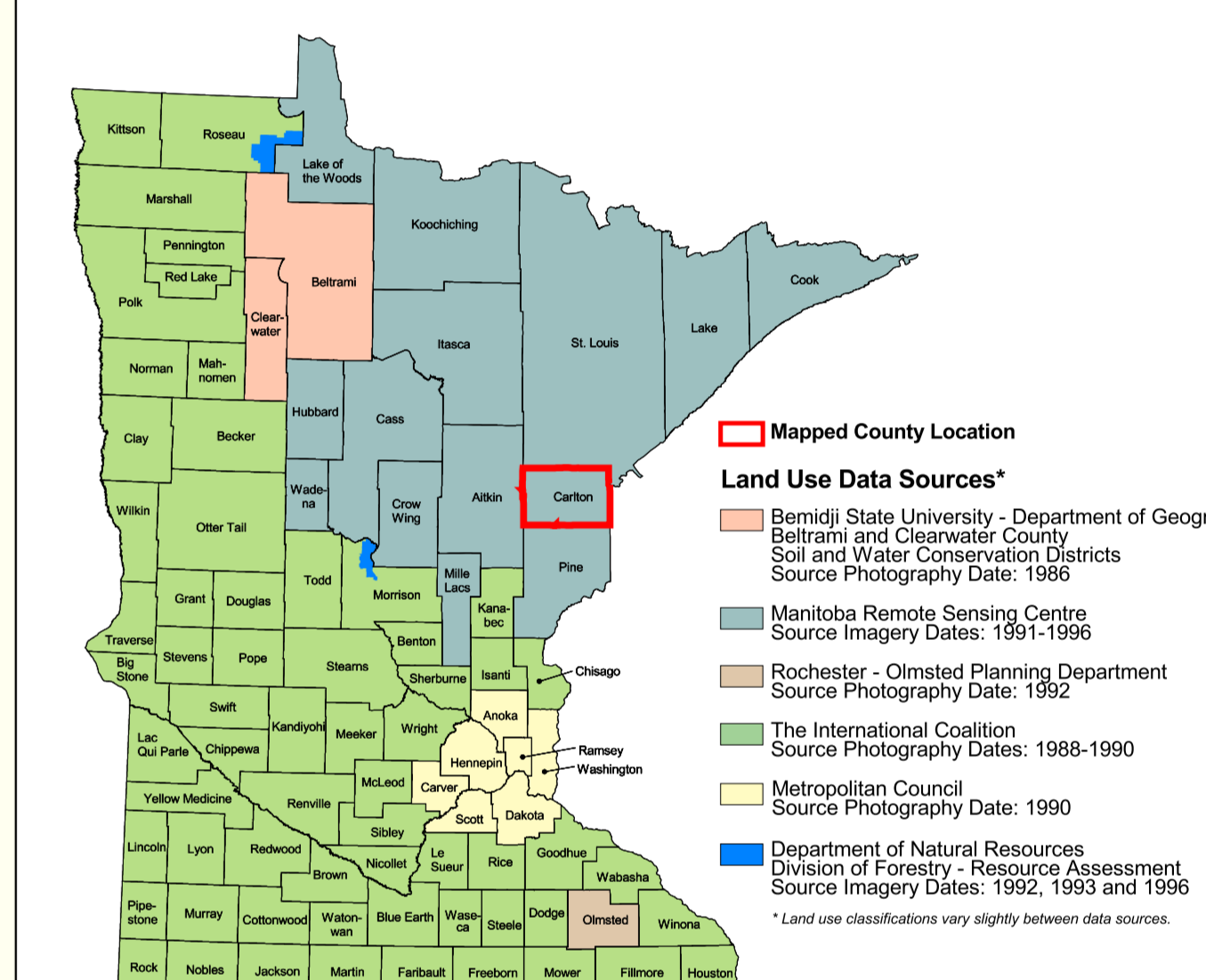
3. Minnesota Department of Transportation, 1997-98

4. Produced by the Minnesota Land Management Information Center from U.S. Geological Survey (USGS) 1:250,000 scale, 30x30' U.S. Bureau of the Census, 1996

5. Minnesota Department of Transportation, 1997-98

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

DESCRIPTION	ACRES	% ACRES
Urban/Industrial	4657.1	0.8
Farmsteads and Rural Residences	2620.2	6.5
Other Rural Developments	4472.7	9.8
Cultivated Land	10886.5	19.9
Grassland	99352.5	17.7
Shrubby Grassland	3897.6	9.7
Regeneration/Young Forest	21991.3	39.9
Mixed Forest	10992.2	20.0
Deciduous Forest	177625.5	318.8
Coniferous Forest	56046.4	101.0
Wetlands: Bogs	101925.4	182.2
Wetlands: Marsh and Fans	45603.6	81.1
Water	12215.3	22.2
Gravel Pits and Open Mines	296.1	0.2
Bare Rock	1771	< 0.1
TOTAL	599,746	100%



ABOUT THIS MAP

Data Sources: With the exception of roads, the land use/land cover categories displayed on this map were derived from 30 meter resolution Landsat Thematic Mapper satellite imagery bands 3, 4 and 5. Satellite imagery dates ranged from September, 1981 to August, 1996. The road category was created from road layers found in the Minnesota Department of Transportation's 1:24,000-scale BaseMap97 data set. Classifications were verified using 1:62,500 color and black-and-white infrared National High Altitude Photography (NHAP). U.S. Forest Service plot data were used to check the forest classifications for Lake County.

Data Interpretation and Computerization: The Manitoba Remote Sensing Centre (MRSC) interpreted the Landsat imagery using a supervised maximum likelihood classification. These classification iterations were typically performed prior to an exhaustive manual verification/editing process using the NHAP photography. Transitional feature types (i.e. coniferous, mixed, deciduous forest classes) were processed by first developing a classification using relatively pure samples of individual types and then by performing a limited classification around a tightly controlled confidence interval. Mixed classes falling outside of the pure class confidence interval were then assigned to a single mixed class.

MRSC used the USFS plot data to reclassify some Lake County coniferous areas to mixed forest. The "regeneration/young forest" category was spot field-checked by Minnesota Department of Natural Resources, Forestry Division personnel, after which they revised the category definition to include some older trees on poorer sites.

This data exhibits a per class and overall classification accuracy of not less than 95 percent.

On-line documentation: http://lucy.lmic.state.mn.us/mesdata/mrsc_ju.html

Credits and Acknowledgements

Data collection and interpretation supported by the Minnesota Future Resources Fund as recommended by the Legislative Commission on Minnesota Resources (LCMR).

The following groups also participated over an extended period:

- Linnett Geosystems, Winnipeg
- The Manitoba Remote Sensing Centre, Winnipeg
- Minnesota Department of Natural Resources
- University of Minnesota - Department of Forest Resources
- Widseth, Smith and Nolting

Map Projection: UTM, Extended Zone 15
Datum: NAD83

Liability Statement

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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>

