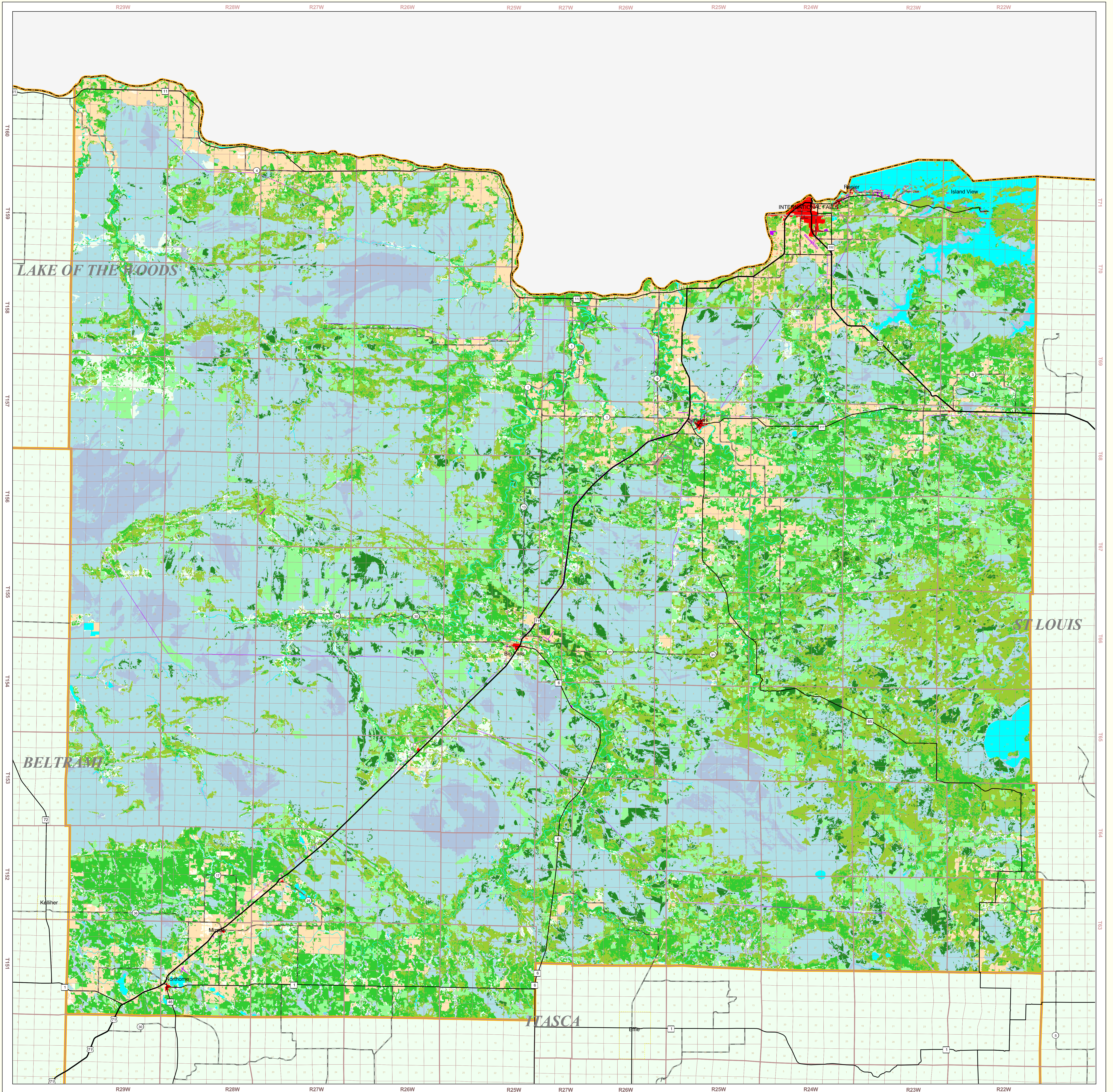


Koochiching County Land Use and Cover

State of Minnesota
June 18, 1995

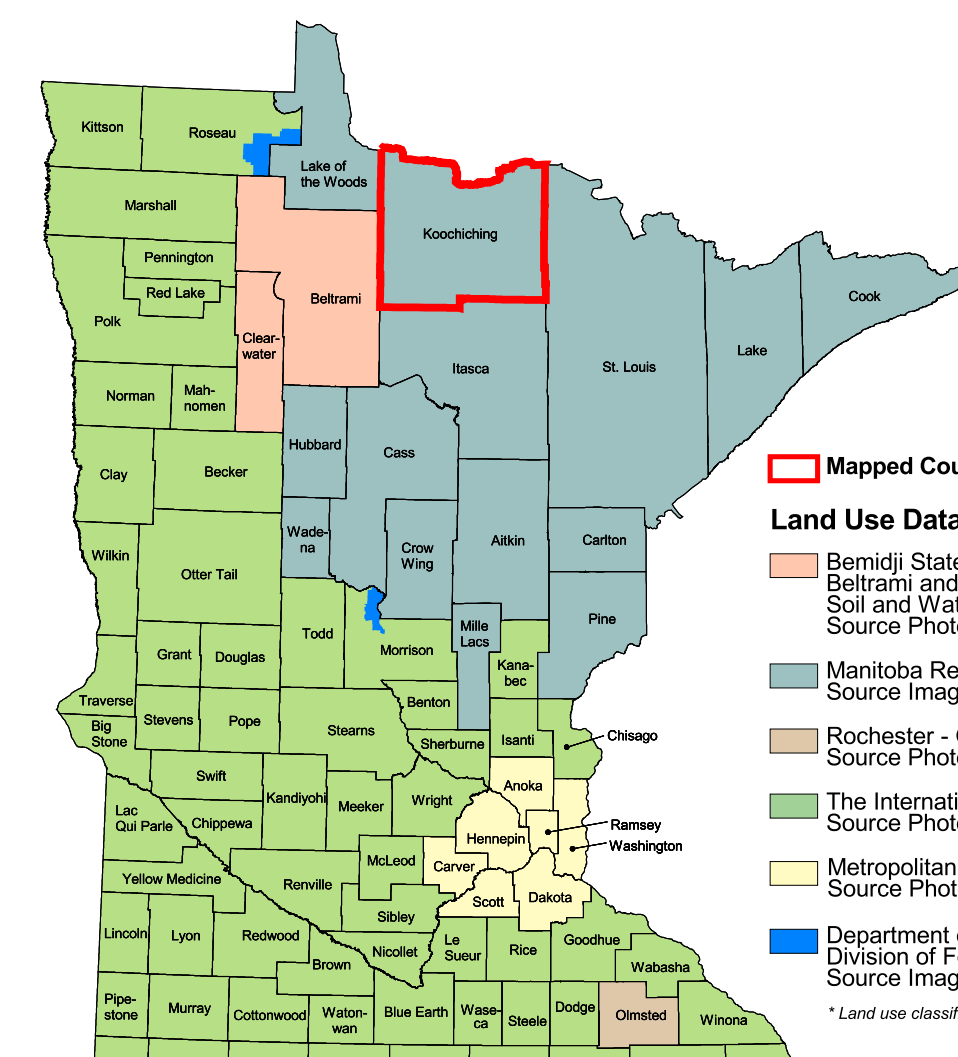


- ### MAP FEATURES
- Land Use**
 - Urban/Industrial
 - Farmsteads and Rural Residences
 - Other Rural Developments
 - Cultivated Land
 - Grassland
 - Shrubby Grassland
 - Regeneration/Young Forest
 - Mixed Forest
 - Deciduous Forest
 - Coniferous Forest
 - Wetlands: Marsh and Fens
 - Wetlands: Marsh and Fens
 - Water
 - Gravel Pits and Open Mines
 - Bare Rock
 - Cities**
 - COUNTY SEAT
 - Other Cities
 - Highways**
 - 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

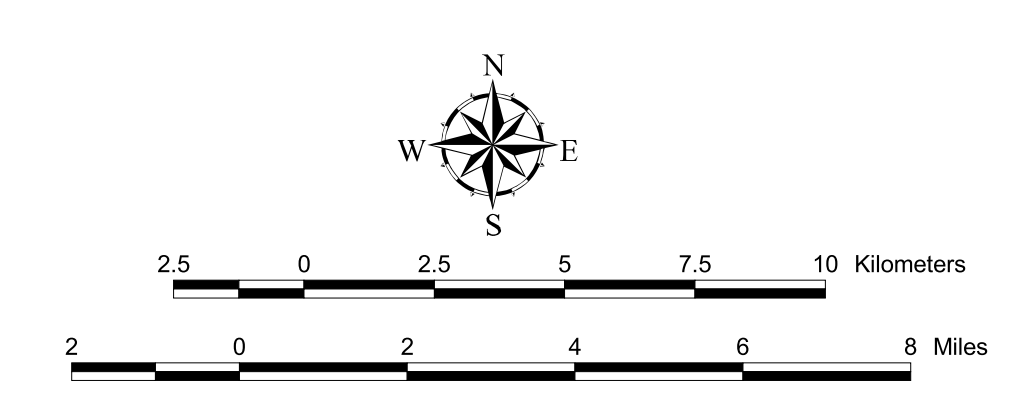
Koochiching County Land Use Statistics

Source: The Land Management Information Center (LMIC)

DESCRIPTION	ACRES	% ACRES
Urban/Industrial	257.1	0.1
Farmsteads and Rural Residences	613.3	<0.1
Other Rural Developments	2981.6	0.1
Cultivated Land	1974.8	<0.3
Grassland	108318.6	5.4
Shrubby Grassland	78722.3	3.8
Regeneration/Young Forest	164340.3	8.1
Mixed Forest	303943.4	15.1
Deciduous Forest	291343.6	14.4
Coniferous Forest	80858.4	4.0
Wetlands: Bogs	82850.7	41.1
Wetlands: Marsh and Fens	109457.1	5.4
Water	44452.3	2.2
Gravel Pits and Open Mines	810.4	<0.1
Bare Rock	82.7	<0.1
TOTAL	2,016,571	100%



- ### Land Use Data Sources*
- Bemidji State University - Department of Geography
 - Beltrami and Clearwater County Soil and Water Conservation Districts
 - Source Imagery Dates: 1991-1996
 - Manitoba Remote Sensing Centre
 - Source Imagery Dates: 1991-1996
 - Rochester - Olmsted Planning Department
 - Source Imagery Date: 1992
 - The International Coalition
 - Source Imagery Dates: 1988-1990
 - Metropolitan Council
 - Source Imagery Date: 1990
 - Department of Natural Resources
 - Division of Forestry - Resource Assessment
 - Source Imagery Dates: 1992, 1993 and 1996
- *Land use classifications vary slightly between data sources.



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, 1991 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 160,000 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. Three classification iterations were typically performed prior to an exhaustive manual verification/editing process using the NHAP photography. Transitional feature types (e.g. 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/metadata/mrsc_n.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
Wideman, Smith and Notting

Map Projection: UTM, Extended Zone 15
Datum: NAD83

Liability statement
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Distribution information
This map was prepared in April, 1998. 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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1. Manitoba Remote Sensing Centre, Source Imagery Dates: 1991-1996
2. USGS/EROS Center File, U.S. Areas of the Conifer, 1995
3. Minnesota Department of Transportation, 1997-98