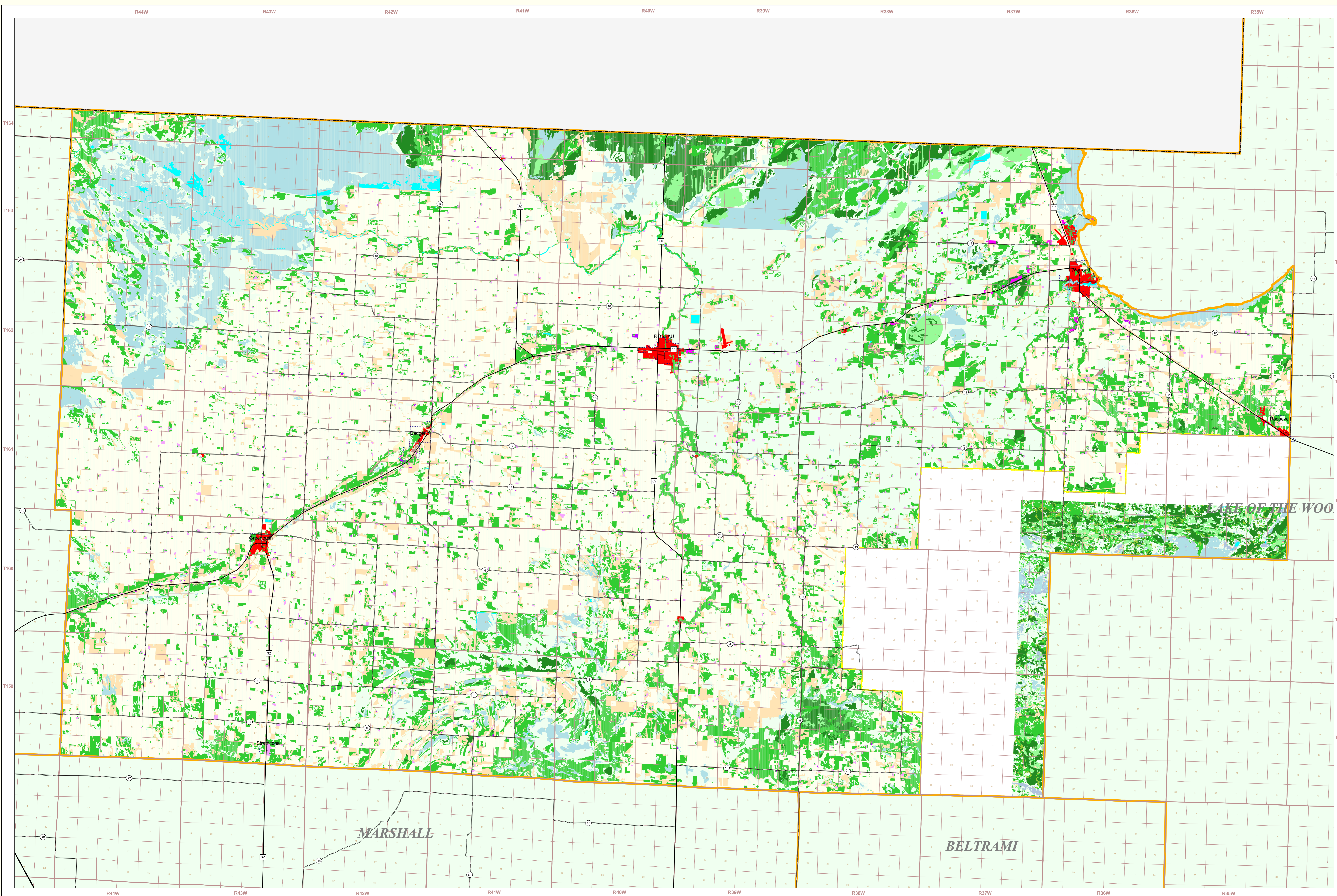


Roseau County Land Use and Cover

State of Minnesota

1988 - 1990, 1992, 1993 and 1996



MAP FEATURES

International Coalition Land Use Portion of Roseau County*

- Urban and Industrial
- Farmsteads and Rural Residences
- Rural Residential Development Complexes
- Other Rural Developments
- Cultivated Land
- Transitional Agricultural Land
- Grassland
- Grassland-Shrub-Tree Complex (Deciduous)
- Grassland-Shrub-Tree Complex (Coniferous)
- Deciduous Forest
- Coniferous Forest
- Wetlands
- Gravel Pits and Open Mines
- Bare Rock
- Exposed Soil, Sandbars, and Sand Dunes
- Unclassified/Unlabeled/Outside State or County

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

Beltrami Island State Forest Land Use Portion Statistics

Source: The Land Management Information Center (LMIC)

DESCRIPTION	ACRES	% ACRES
Urban/Industrial	241.4	0.21
Farmsteads and Rural Residences	151.3	0.13
Other Rural Developments	232.3	0.20
Cultivated Land	1,587.6	14.10
Grassland	12,113.4	107.67
Grassland-Shrub-Tree Complex (Deciduous)	1,161.9	10.31
Grassland-Shrub-Tree Complex (Coniferous)	1,202.7	10.68
Deciduous Forest	1,548.1	13.81
Coniferous Forest	1,505.0	13.43
Wetlands	1,183.2	10.56
Gravel Pits and Open Mines	28.0	0.25
Bare Rock	1.0	0.01
Exposed Soil, Sandbars, and Sand Dunes	126.2	1.12
Unclassified/Unlabeled/Outside State or County	12,113.4	107.67
TOTAL	29,824.4	100%

Roseau County Land Use Statistics

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Data Sources

- The International Coalition Source: Photography Dates: 1988-1990
- Department of Natural Resources Forestry Resource Assessment and Inventory Unit Source: Photography Dates: 1992, 1993 and 1996
- TM2011/19 County files U.S. Bureau of the Census, 1995
- Minnesota Department of Transportation, 1997-98
- Produced by the Minnesota Land Management Information Center from U.S. Geological Survey (1:24,000 scale) maps, 30x30" quadrangle maps published between 1977 and 1996

Map of County Location

Land Use Data Sources*

- Beltrami Island State Forest - Department of Geology Soil and Water Conservation Districts Source: Photography Date: 1990
- Marchole Remote Sensing Centre Source Imagery Dates: 1991-1996
- Rochester - Olmsted Planning Department Source: Photography Dates: 1988-1990
- The International Coalition Source: Photography Dates: 1988-1990
- Metropolitan Council Source: Photography Date: 1990
- Department of Natural Resources Division of Forestry - Resource Assessment Source Imagery Dates: 1992, 1993 and 1996

ABOUT THIS MAP

Roseau County Excluding Beltrami Island State Forest

Data Sources: The land use / land cover categories displayed on this map were derived from sources that included the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service's (ASCS) low altitude, section-centered, 35mm color aerial photography taken during 1988-1990 and U.S. Fish and Wildlife Service National Wetlands Inventory (NWI), 1:24,000-scale field maps. Landsat satellite imagery (data uncorrected) were used to verify the classifications.

Data Interpretation and Computerization: The project was coordinated by The International Coalition for Land and Water Stewardship in the Red River Basin. Land use / land cover interpretation was performed by DPA International. The smallest area interpreted was approximately 2.5 acres.

Land use / land cover information was transcribed on to stable-base mylars registered to U.S. Geological Survey's 1:24,000-scale topographic maps and then digitized by DPA International or Alexandria Technical College staff. Minnesota Department of Natural Resources GIS Bureau staff then joined the digitized files together to create county coverages.

On-line documentation: <http://lucy.lmic.state.mn.us/mapdata/use89.html>

Beltrami Island State Forest

Data Sources: For this portion of the map, land use / land cover categories were derived from several bands of 30 meter resolution Landsat Thematic Mapper satellite imagery: six bands from 8:00:00, bands 3, 4, 5 from 5:00:00, and bands 3, 4, 5 from 9:00:00.

Data Interpretation and Computerization: The Minnesota Department of Natural Resources (DNR) Resource Assessment and Inventory Unit (Forest Resource Management, Forestry Division) interpreted the Landsat imagery using a classification scheme based on guided clustering, a mix of supervised and unsupervised techniques using ERDAS image processing software.

Guided clustering is a multi-temporal classification technique that mixes bands of differing dates during the initial statistical signature analysis. In this case it began by reclassifying DNR's Cooperative Stand Assessment (CSA) inventory cover polygons to match those used in the "Minnesota Land Use - Forested Areas" data set. Then, pixels identified as CSA stands were classified using supervised techniques. The resulting signatures were analyzed to develop class signatures that were later used to classify the satellite images.

On-line documentation: <http://lucy.lmic.state.mn.us/mapdata/lp08f.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:

- Alexandria Technical College - GIS Program
- DPA International
- The International Coalition
- Minnesota Board of Water and Soil Resources
- Minnesota Department of Natural Resources
- Minnesota Land Management Information Center
- North Dakota State University - Agricultural Engineering Department
- The Red River Management Board
- University of Minnesota - Department of Forest Resources
- University of North Dakota - Geography Department
- Widseth, Smith and Notling

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>