Michigan State University Extension
Land Use Series
Standardized Land Use and other Thematic Map Colors

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When preparing a map by hand, with a Computer Aided Design (CAD) system, or with a Geographic Information System (GIS), selection of colors is important.

People associate different colors with different things. To make a map easily readable it is important to use colors associated with the item being shown. For example, blue is associated with water. It is unusual to show water on a map in a color other than blue. Green often represents forest or lowlands, and browns are typically used for dry desert type of environments.

When showing elevations, a gradation of colors is used to show the change from lands which are low to mountain tops. For example:

Ice and mountain tops	White	
High up in mountains (above tree line)	Brown	
Transition	Browns to yellow greens	
Highlands	Yellows	
Middle range lands	Green	
Lands near sea level	Dark Green	
Lands below sea level and deserts	Beige	
Lakes and rivers	Blue	

"Thirty seven million acres is
all the Michigan we will ever have"
William G. Milliken

This is a fact sheet developed by experts on the topic(s) covered within MSU Extension. Its intent and use is to assist Michigan communities making public policy decisions on these issues. This work refers to university-based peer reviewed research, when available and conclusive, and based on the parameters of the law as it relates to the topic(s) in Michigan. This document is written for use in Michigan and is based only on Michigan law and statute. One should not assume the concepts and rules for zoning or other regulation by Michigan municipalities and counties apply in other states. In most cases they do not. This is not original research or a study proposing new findings or conclusions.

When preparing a zoning map or a future land use map there are similar color conventions based on color association with the topic of what is being shown. The following is one example:

Environmental, historic, special zoning districts	Light blues	
Agricultural and Forest preservation zoning districts	Dark greens	
Other agricultural, forest, rural residential zoning districts	Greens	
Rural residential district	White	
Residential zoning districts	Yellow	
Commercial zoning districts	Oranges	
Industrial zoning districts	Reds	
Overlay districts	just in outline or with a hatched pattern	

When there are more than one type of zoning district, choose similar colors. For example, use a dark orange for the downtown commercial district and a light orange for a neighborhood commercial district. A residential-commercial zoning district might be yellow-orange.

Probably the map where color selection is the most important is when there are a lot of categories to be shown such as on a land use map. On the following page is a suggested color scheme for preparing a land use/land cover map. The numbers and land use/cover titles are the same which is used by the Michigan Resource Inventory System Land Use/Land Cover classification system.

Land Use/Cover Classification System Color Coding

For land use cover one color scheme is to use colors associated with the theme of the land use. This system of color, or shading, uses a system which has been used by most counties in northwest Michigan. In the table, below, these colors are shown in columns 2A and 2B.

The color coding used by RS&GIS Michigan Land Use/Cover Classification System Color Coding is different

This system of color, or shading, uses a system which has been developed by Michigan State University's Center for Remote Sensing and Geographic Information Science (RS&GIS) under the direction of

Professor Jessica Moy. It is used with most of their products. In the table, below, these colors are shown in columns 3A and 3B.

1. Land Use Category	2A.Color by Association	2B. Color by Association	3A RS&GIS colors	3B. RS&GIS colors
1 Urban **11 Residential** 111 Multi-family high rise 112 Multi-family low rise 113 Single family & duplex 115 Mobile home parks	Yellow		Light red	
12 Commercial & Service 121 Primary central business district 122 Shopping center/mall 124 Secondary business district 125 Other commercial & service 126 Institutional/government	Orange		Red	
13 Industrial 131 Primary metal production 132 Petrochemicals etc. 133 Primary wood processing 134 Stone, clay, cement, etc. 138 Industrial parks	Red		Dark purple	
14 Transportation, Communication, Utilities 141 Air transportation 142 Rail transportation 143 Water transportation 145 Communications 146 Utilities	Black		Black	
17 Extractive 171 Open pits 173 Wells	Brown		Aqua	
19 Open & Other 193 Outdoor recreation 194 Cemeteries 199 Other	Purple		Light green	
2 Agricultural **21 Crop land** 22 Orchard vineyard horticulture 223 Horticulture nurseries	Light Green		Light green	
23 Feed lots	Light Green		Light orange	
24 Permanent pasture **29 Other**	Light Green		Yellow	
291 Farmsteads	Light Green		Pink	
3 Rangeland **31 Herbaceous field**	White		Brown	
32 Shrub plants in a field	White		Yellow-brown	
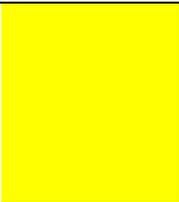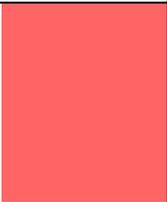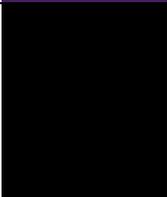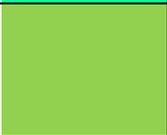
1. Land Use Category	2A.Color by Association	2B. Color by Association	3A RS&GIS colors	3B. RS&GIS colors
4 Forested **41 Deciduous** 411 Northern hardwood 412 Central hardwood 413 Aspen/White Birch association 414 Lowland hardwood	Green		Green	
42 Coniferous 421 Pine 422 Other upland conifer 423 Lowland confiner	Dark Green		Very dark green	
429 Christmas tree plantation	Light Green		Very dark green	
43 Mixed Conifer-Deciduous 431 Upland hardwood & Pine	Green		Dark Green	
44 Clearcut	Green		Dark green with brighter hue	
5 Water **51 Stream, waterway** **52 Lake** **53 Reservoir, dam backwater**	Blue		Light blue	
6 Wetland **61 Forested** 611 Wooded, 20+ feet tall	Light blue		Light purple	
612 Shrub/scrub **62 Non-forested** 622 Emergent (plants above water)	Light blue		Purple	
7 Barren **72 Beaches & riverbanks** **73 Sand dunes** **0 Not classified/unknown**	Beige		White	
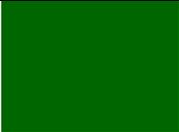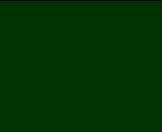
Authors

This publication was developed by:

- Kurt H. Schindler, AICP, Distinguished Senior Educator Emeritus, Government and Public Policy, MSU Extension, Michigan State University

To find contact information for authors or other MSU Extension experts use this web page: http://msue.anr.msu.edu/experts.