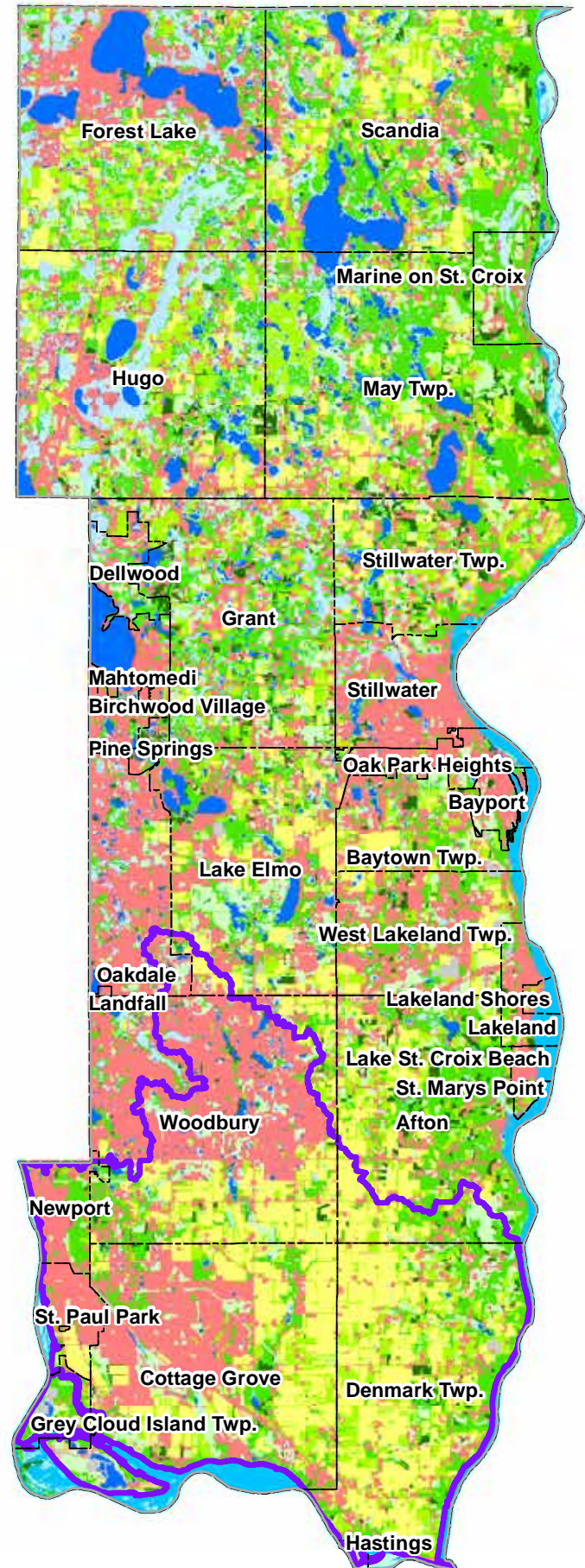


BUILDING COMMUNITY RESILIENCE WORKSHOPS - MAP DATA TABLE OF CONTENTS

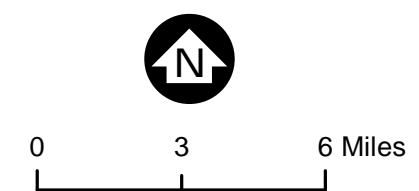
2	WASHINGTON COUNTY 2011 LAND COVER MAP
3	WASHINGTON COUNTY 2016 LAND USE MAP
4	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF COTTAGE GROVE
5	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF NEWPORT
6	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF WOODBURY
7	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF OAKDALE
8	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF LAKE ELMO
9	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF ST. PAUL PARK
10	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF AFTON
11	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - DENMARK TOWNSHIP
12	PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - GREY CLOUD ISLAND TOWNSHIP
13	ROAD FUNCTION CLASSIFICATION SYSTEM - TWIN CITIES METRO SEPT 2014
14	TWIN CITIES URBAN HEAT ISLAND SEASONAL MAP
15	WASHINGTON COUNTY PERCENTAGE OF IMPERVIOUS SURFACES
16	TWIN CITIES METROPOLITAN AREA REGIONAL PARK SYSTEM PLAN
17	WASHINGTON COUNTY MAP OF GROUND COVERS
18	TWIN CITIES LANDSLIDE INVENTORY MAPPING
19	TWIN CITIES POTENTIAL GROUNDWATER LEVEL DECLINES UNDER PROJECTED 2040 PUMPING CONDITIONS (PRAIRIE DU CHIEN-JORDAN AQUIFER)
20	TWIN CITIES METRO AREA POVERTY RATES (AN INCOME OF \$20,420 OR BELOW FOR A FAMILY OF 3) - CENSUS TRACT 2008-2012
21	WASHINGTON COUNTY MAP OF HOUSEHOLDS WITHOUT A VEHICLE - CENSUS TRACT 2008-2012
22	WASHINGTON COUNTY MEDIAN HOUSEHOLD INCOME - CENSUS TRACT 2008-2012
23	WASHINGTON COUNTY SHARE OF HOUSEHOLDS EXPERIENCING SEVERE HOUSING COST BURDEN (50% OF INCOME TO HOUSING) - CENSUS TRACT 2008-2012
24	WASHINGTON COUNTY DEMOGRAPHIC MAP - POPULATION AGE 65 AND OVER - 2000 CENSUS TRACT
25	SOLAR RESOURCE AVAILABILITY IN THE TWIN CITIES
26	ELECTRICITY TRANSMISSION LINES IN THE TWIN CITIES
27	UTILITIES IN WASHINGTON COUNTY
28	CLIMATE RISK ACROSS ENTIRE SUPPLY CHAIN NETWORK AFFORDABILITY AND RELIABILITY OF ELECTRICITY, FUEL, AND FOOD
29	CHANGE IN PLANT HARDINESS ZONES (1990 -2006) CHANGE IN RAGWEED POLLEN SEASON 1995-2013



WASHINGTON COUNTY 2011 LAND COVER MAP



- Washington County
- City Boundries
- SWWD
- Small Grains
- Scrub & Shrub Wetlands
- Row Crops
- Rivers & Streams
- Mixed Forest
- Managed Grass
- Lakes & Ponds
- Lakes & Ponds
- Hay & Pasture
- Grassland
- Forested Wetlands
- Extraction
- Emergent Wetlands
- Deciduous Forest
- Conifer Forest
- Urban Landclasses



Land Cover
Building Community
Resilience Workshop

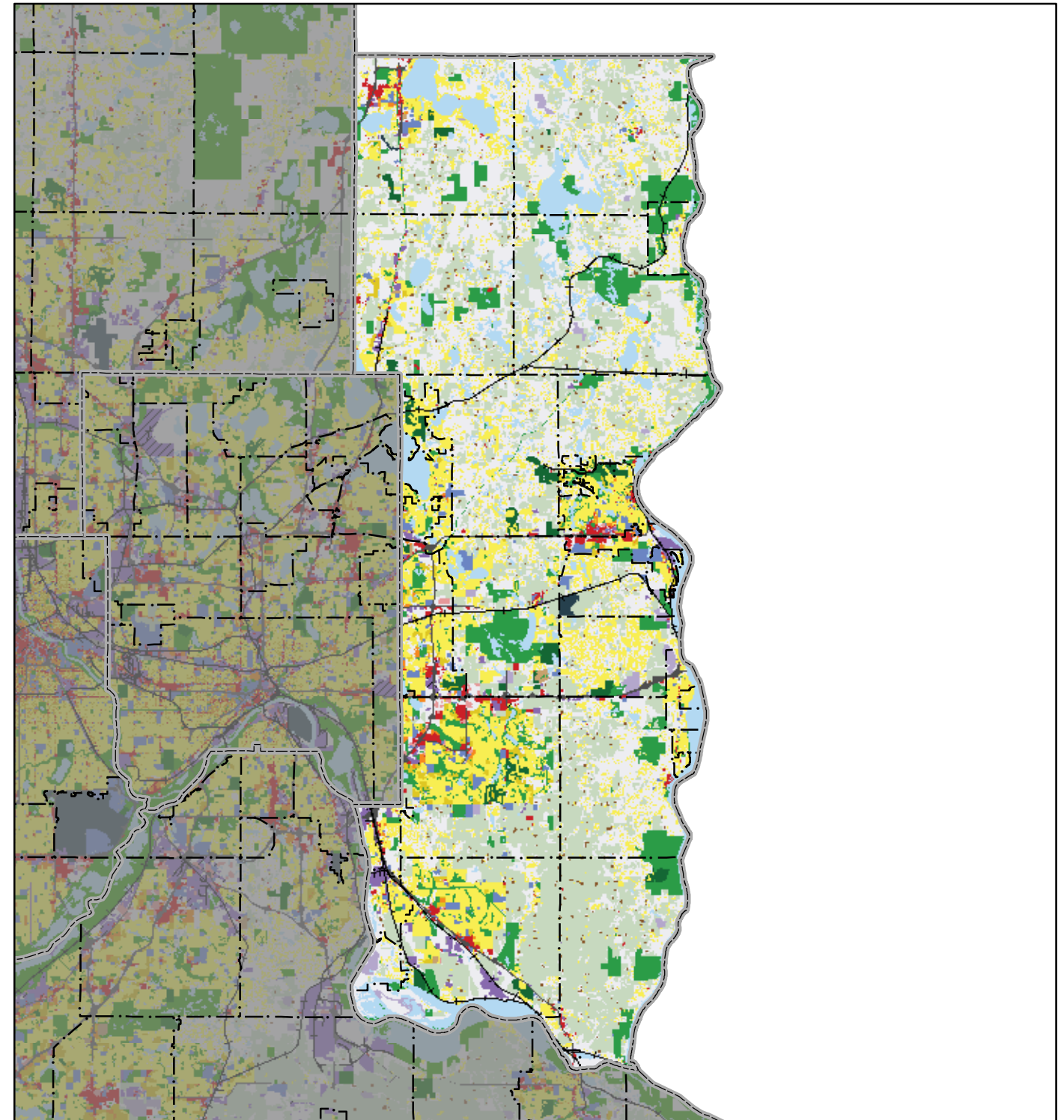
MAP SOURCE:
National Land Cover
Database 2011



WASHINGTON COUNTY 2016 LAND USE MAP

2016 Generalized Land Use Washington County

2016 Generalized Land Use

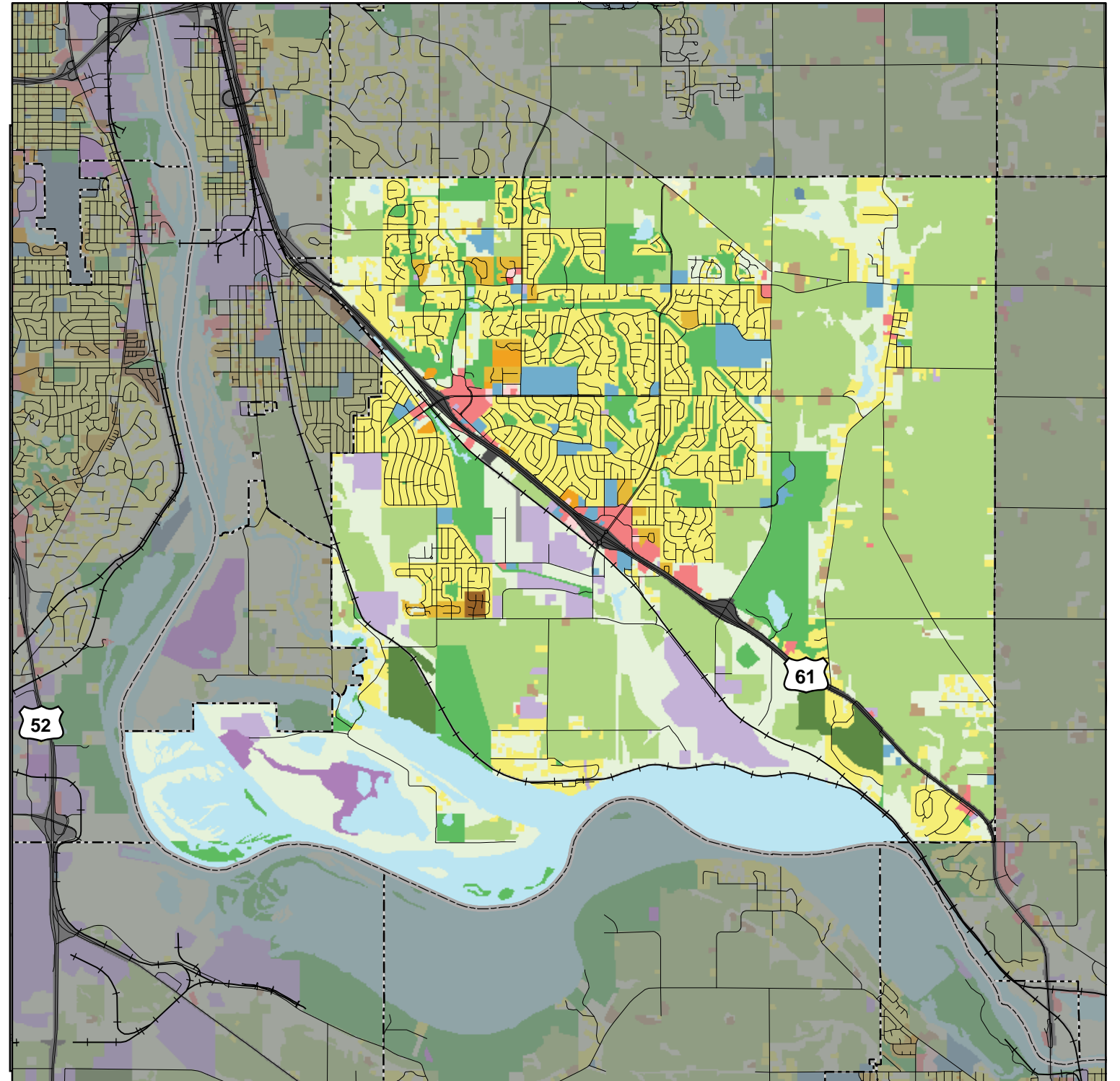


Approximately 1 inch = 5.38 miles

PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF COTTAGE GROVE

2016 Generalized Land Use City of Cottage Grove, Washington County

2016 Generalized Land Use



Approximately 1 inch = 1.24 miles

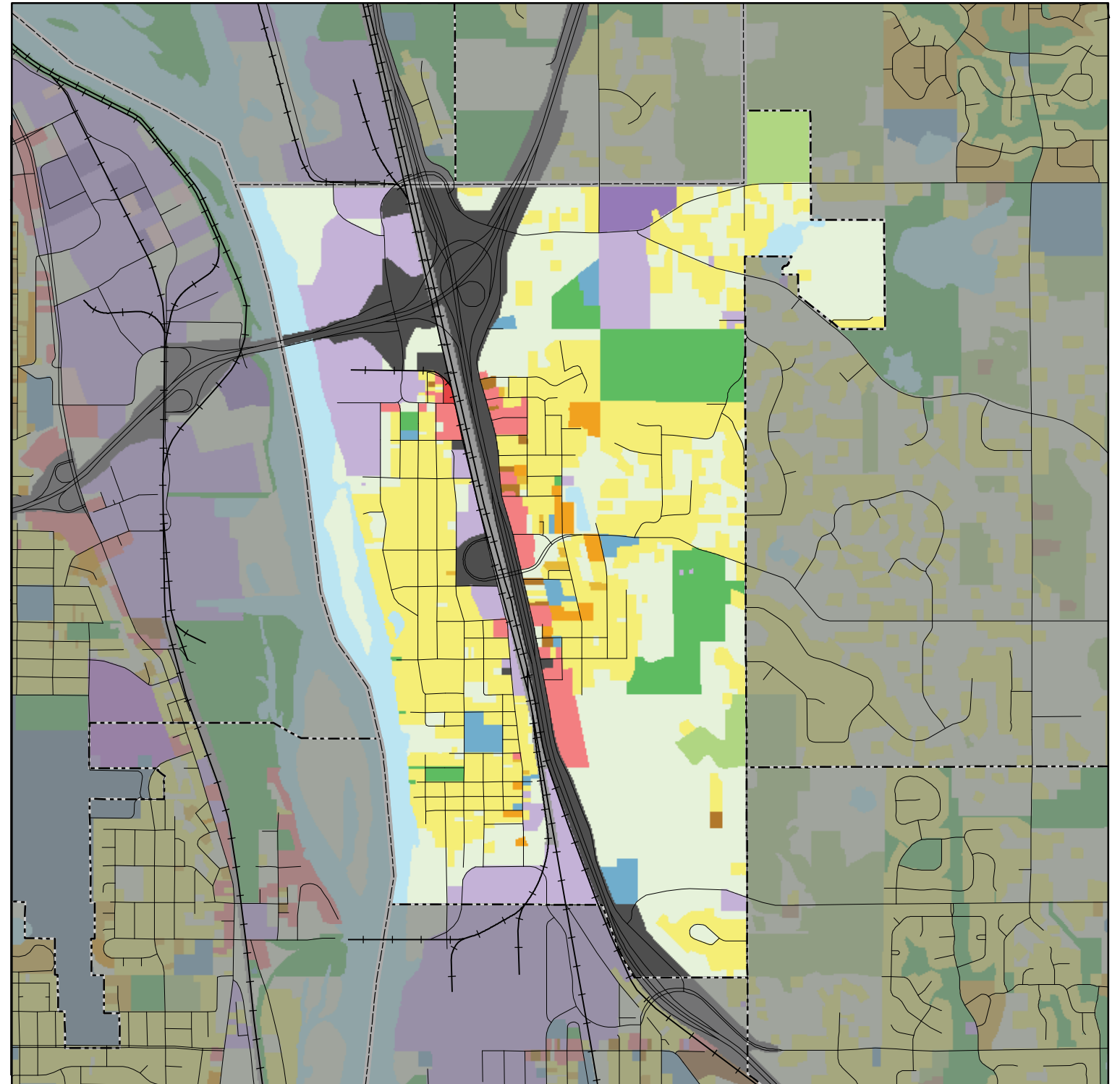
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF NEWPORT

2016 Generalized Land Use City of Newport, Washington County

2016 Generalized Land Use



Approximately 1 inch = .48 miles

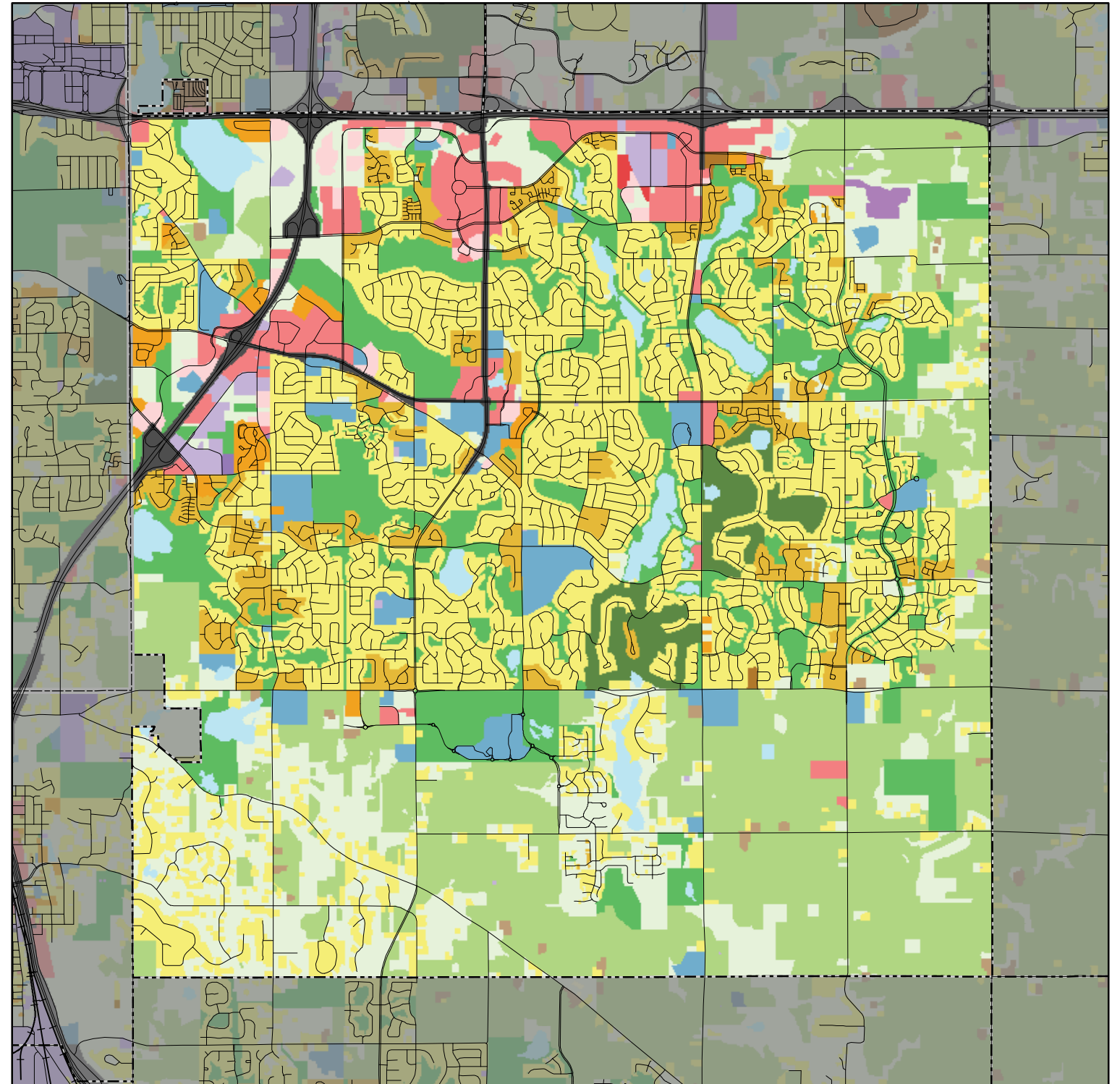
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF WOODBURY

2016 Generalized Land Use City of Woodbury, Washington County

2016 Generalized Land Use



Approximately 1 inch = .97 miles

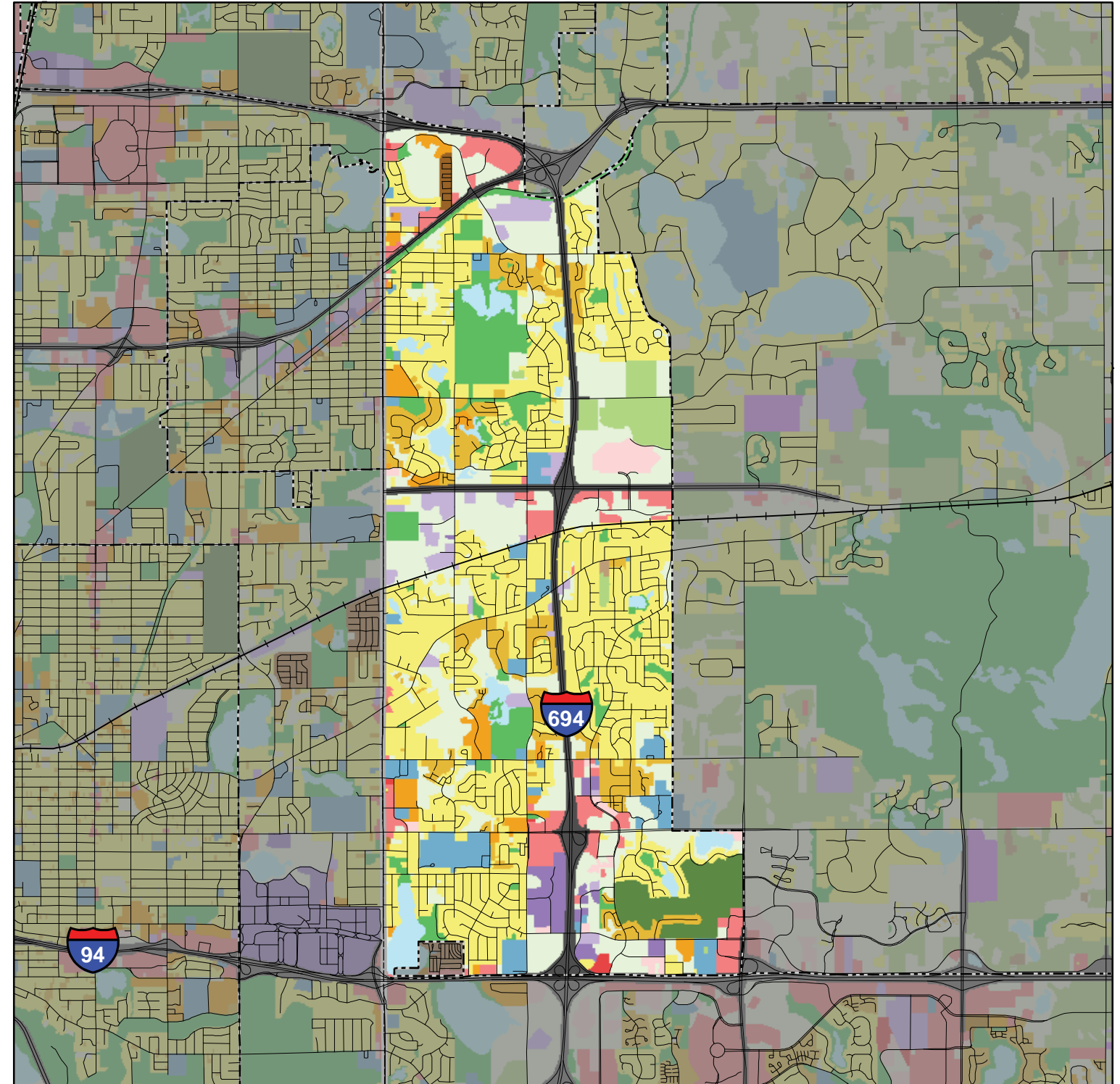
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF OAKDALE

2016 Generalized Land Use City of Oakdale, Washington County

2016 Generalized Land Use



Approximately 1 inch = .96 miles

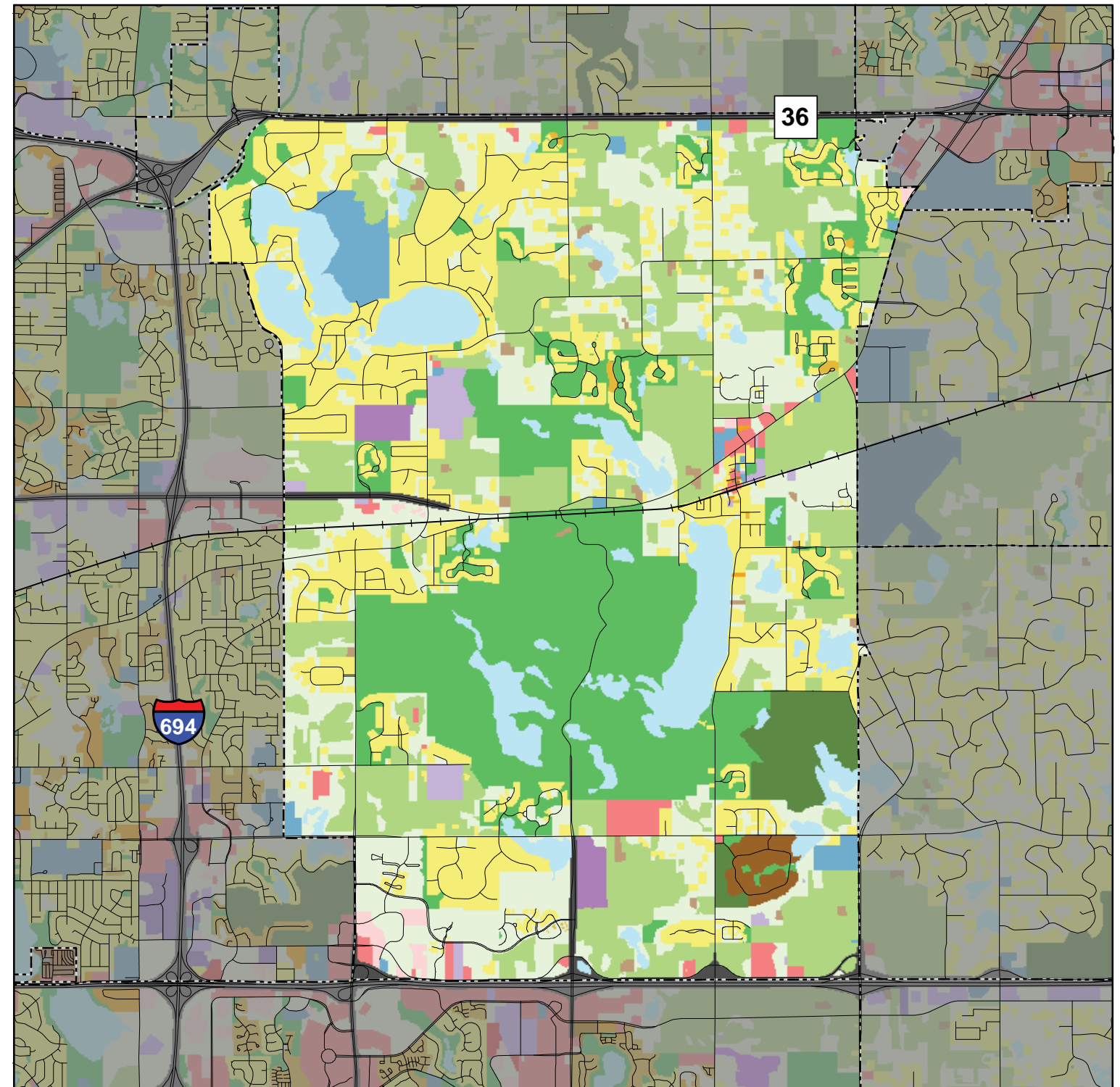
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF LAKE ELMO

2016 Generalized Land Use City of Lake Elmo, Washington County

2016 Generalized Land Use



Approximately 1 inch = .96 miles

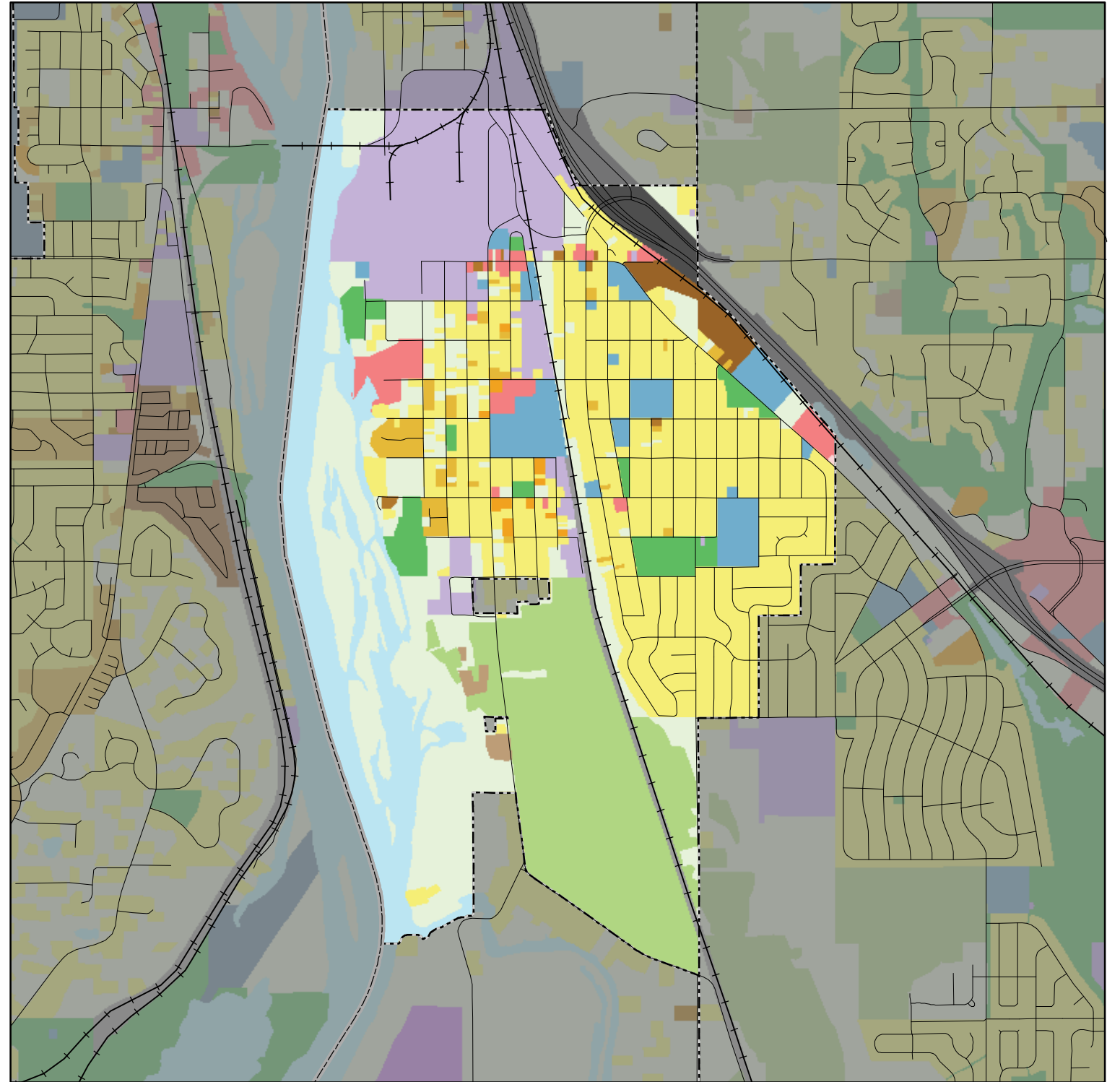
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF ST. PAUL PARK

2016 Generalized Land Use City of St. Paul Park, Washington County

2016 Generalized Land Use



Approximately 1 inch = .46 miles

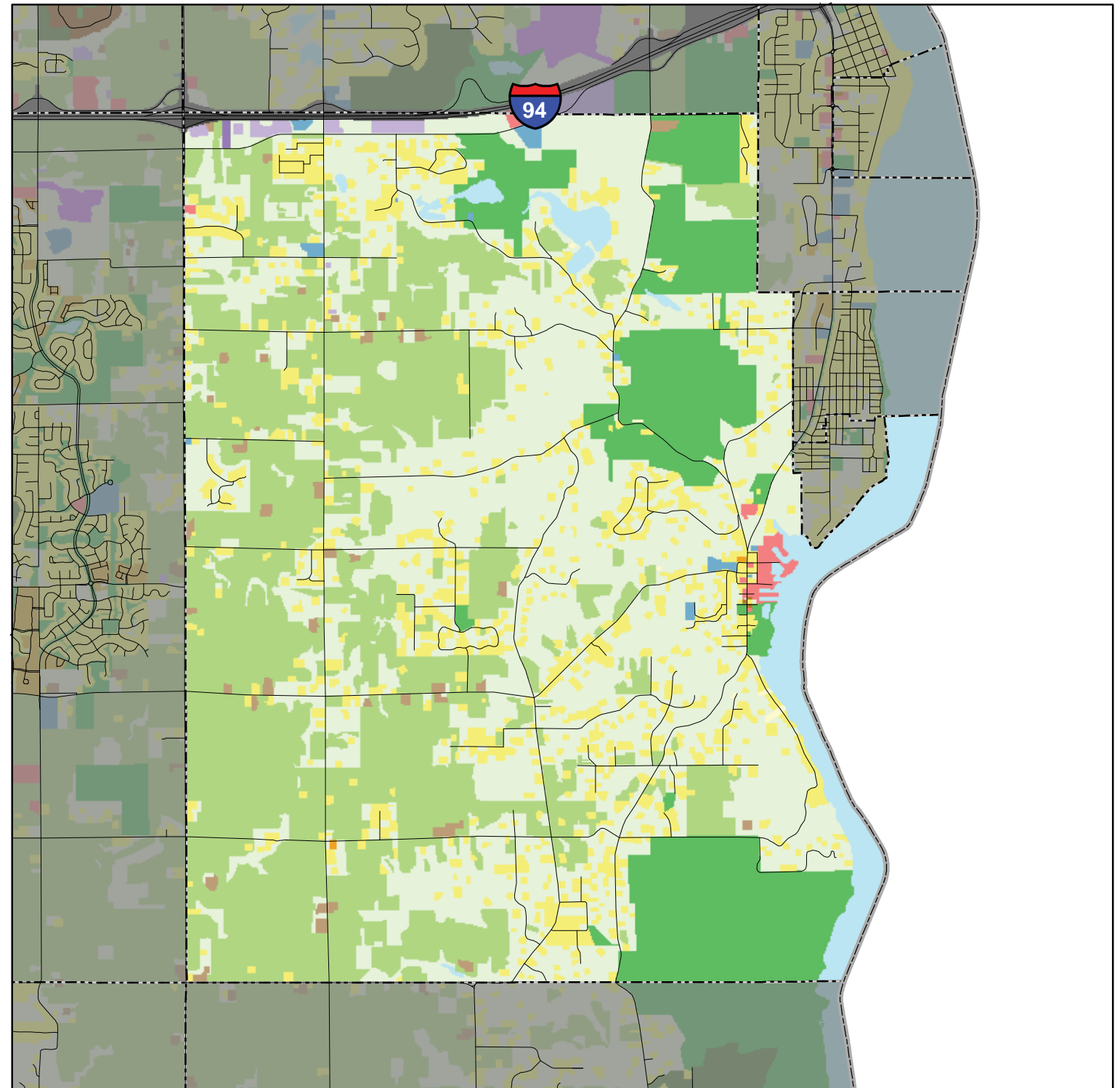
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - CITY OF AFTON

2016 Generalized Land Use City of Afton, Washington County

2016 Generalized Land Use

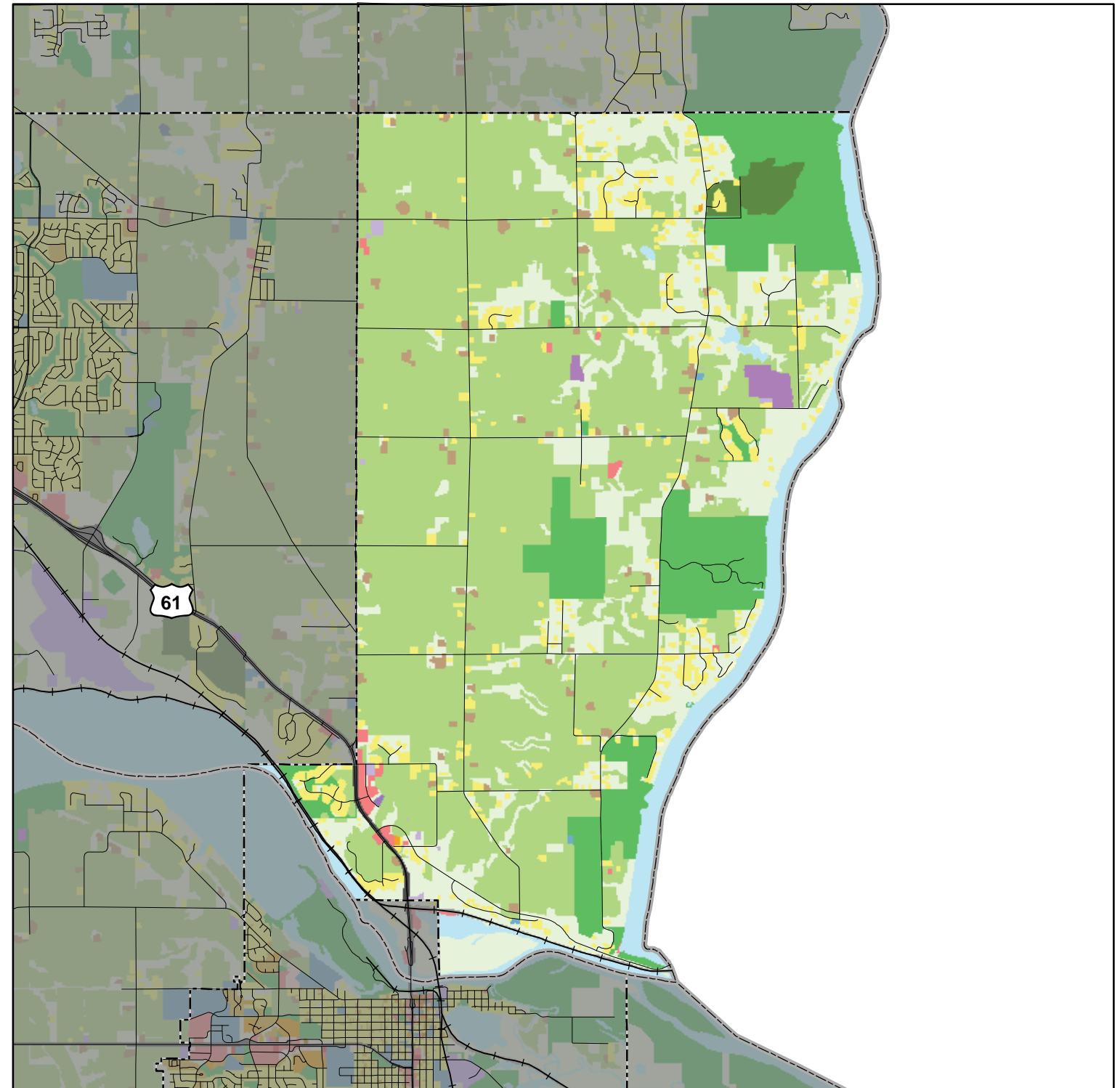


Approximately 1 inch = .96 miles

PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - DENMARK TOWNSHIP

2016 Generalized Land Use Denmark Township, Washington County

2016 Generalized Land Use



Approximately 1 inch = 1.28 miles

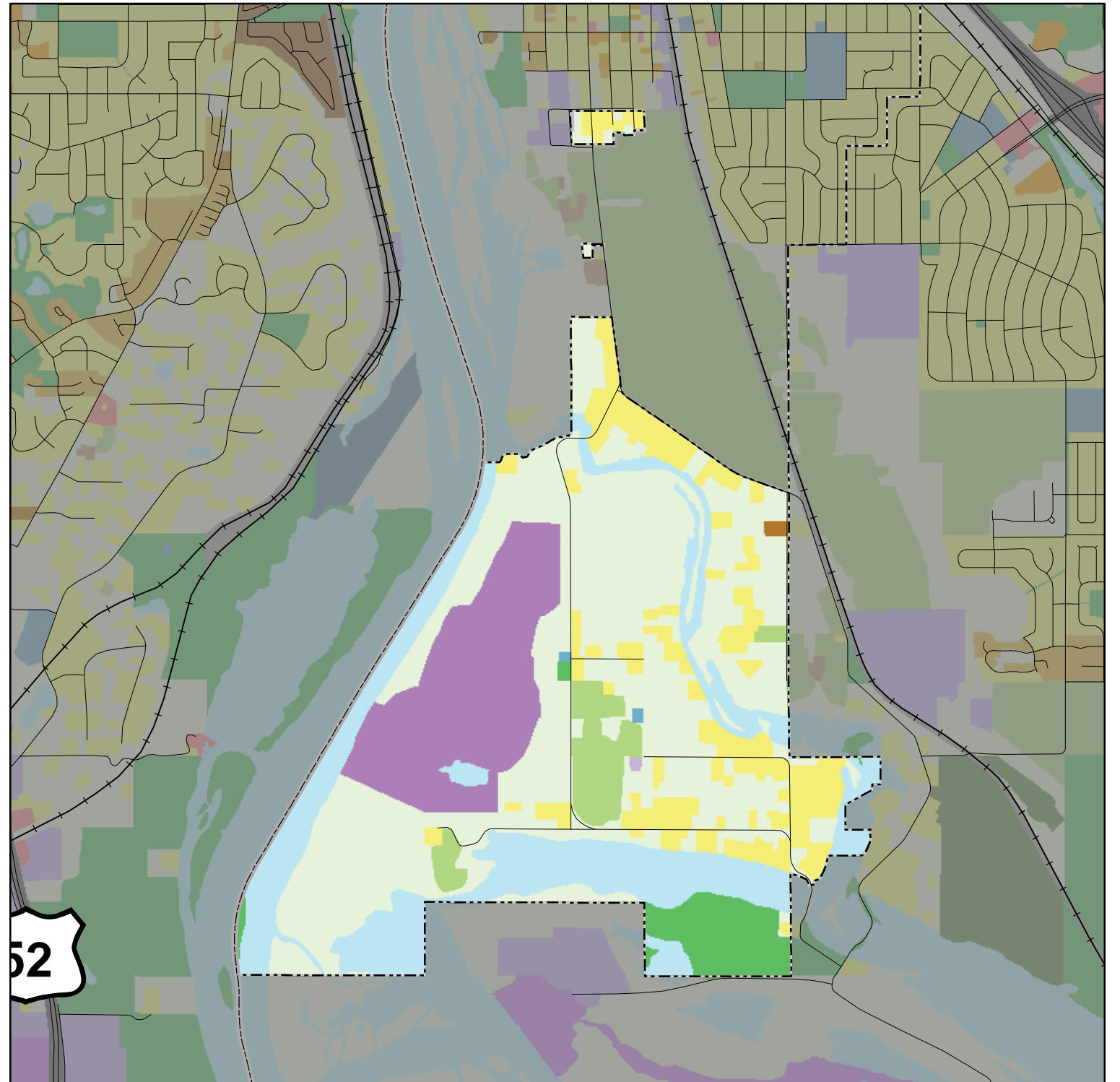
MAP SOURCE:



PLANNED LAND USE: GENERALIZED REGIONAL CATEGORIES - GREY CLOUD ISLAND TOWNSHIP

2016 Generalized Land Use Grey Cloud Island Township, Washington County

2016 Generalized Land Use



















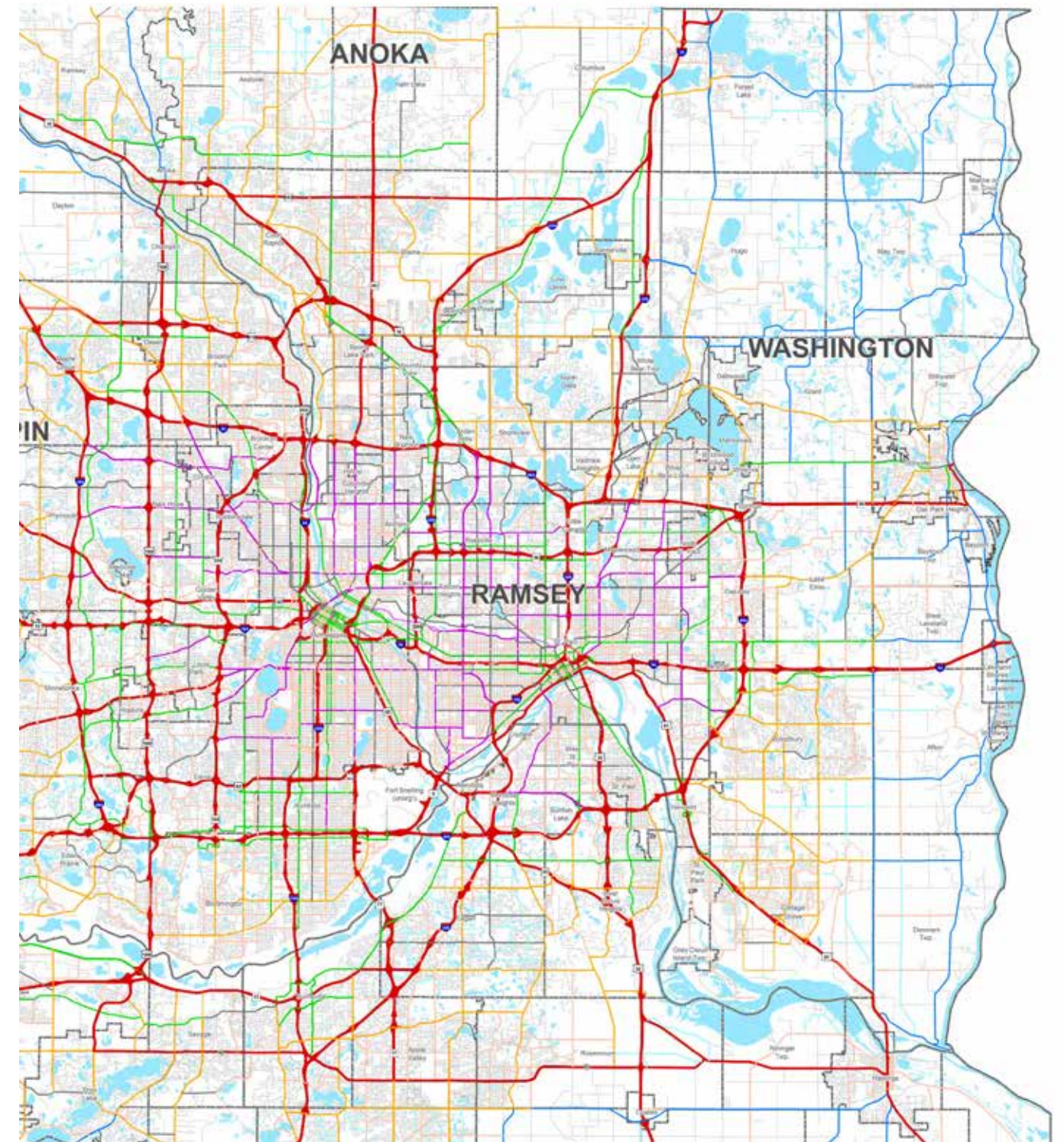
Approximately 1 inch = .47 miles

MAP SOURCE:



ROAD FUNCTION CLASSIFICATION SYSTEM - TWIN CITIES METRO SEPT 2014

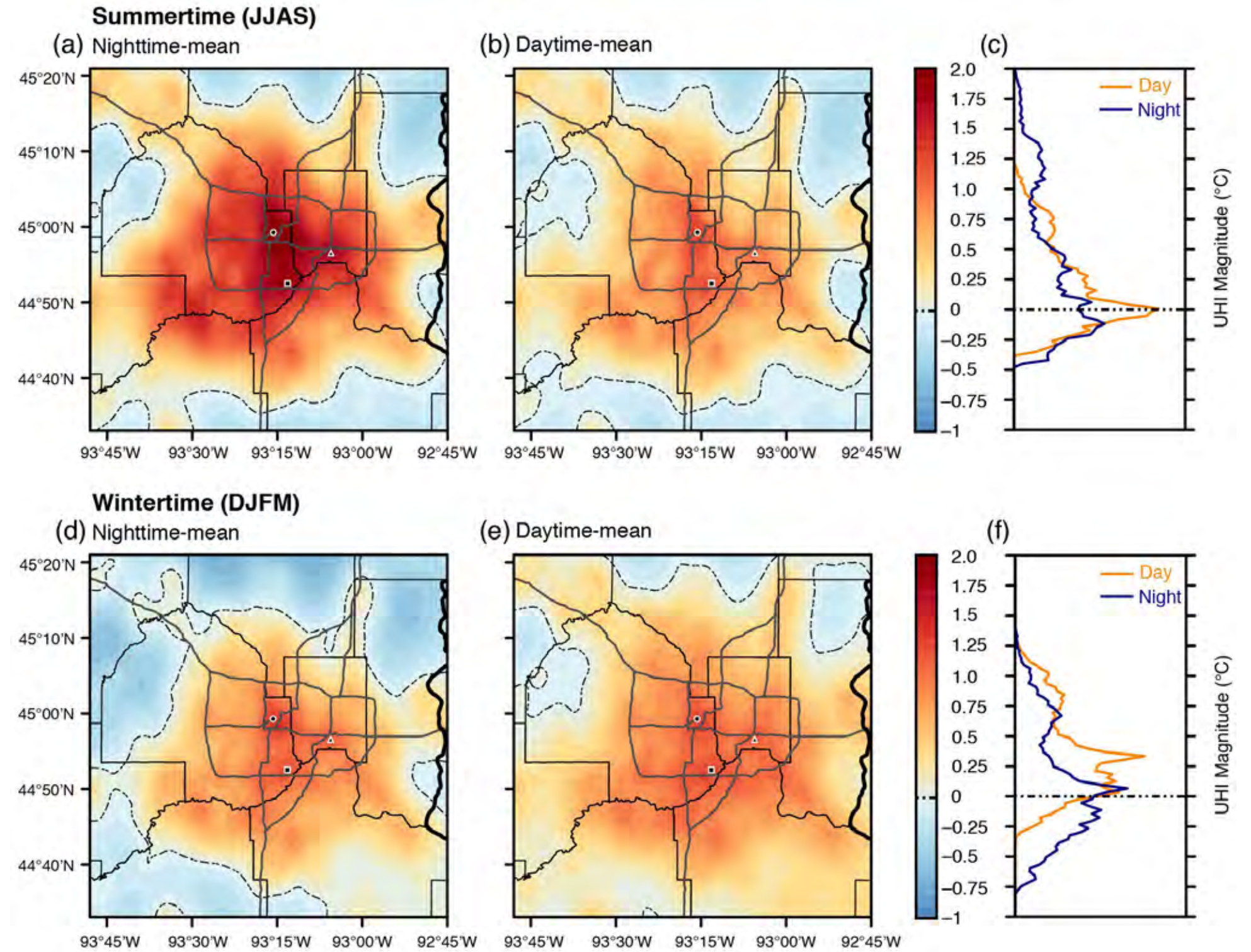
Existing	Functional Class Roads	Planned
	Principal Arterial	
	A-Minor Augmentor	
	A-Minor Reliever	
	A-Minor Expander	
	A-Minor Connector	
	Other Arterial	
	Major Collector	
	Minor Collector	



MAP SOURCE:



TWIN CITIES URBAN HEAT ISLAND SEASONAL MAP

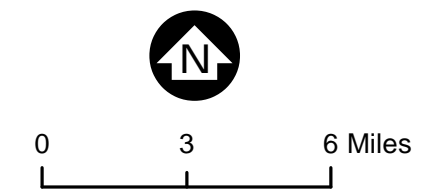
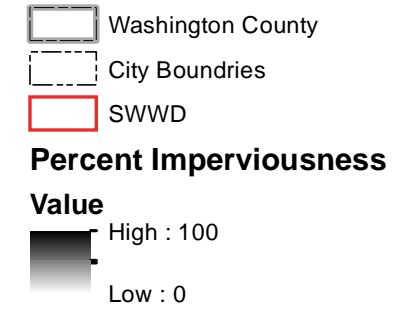
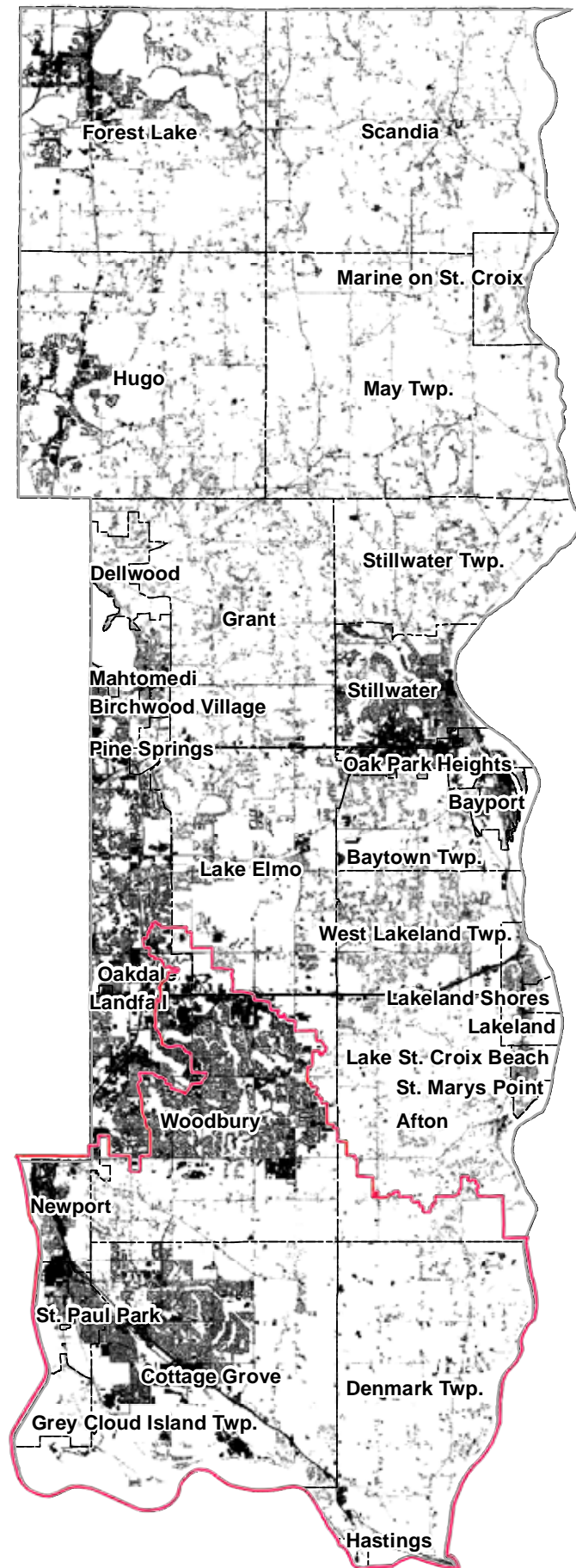


MAP SOURCE: <http://journals.ametsoc.org/doi/abs/10.1175/JAMC-D-14-0239.1>
<https://10.wp.com/environment.umn.edu/wp-content/uploads/2016/02/UHISeasonalMap.jpg>

Dense Network Observations of the Twin Cities
 Canopy-Layer Urban Heat Island



WASHINGTON COUNTY PERCENTAGE OF IMPERVIOUS SURFACES



Land Cover
Building Community
Resilience Workshop

MAP SOURCE:



Bauer, Marvin, Joseph Knight,
Leif Olmanson, Margaret Voth
and Joshua Dunsmoor. 2013. Twin
Cities Metropolitan Area Land
Cover and Impervious Surface
Area Classification by Remote
Sensing: 2011 Update. Final Report
to the Metropolitan Council



TWIN CITIES METROPOLITAN AREA REGIONAL PARK SYSTEM PLAN

Regional Parks

- Park Reserves
- Regional Parks
- Special Recreation Features
- Planned Regional Parks

Regional Trails

- Existing
- Planned

Regional Park Search Areas and Regional Trail Search Corridors

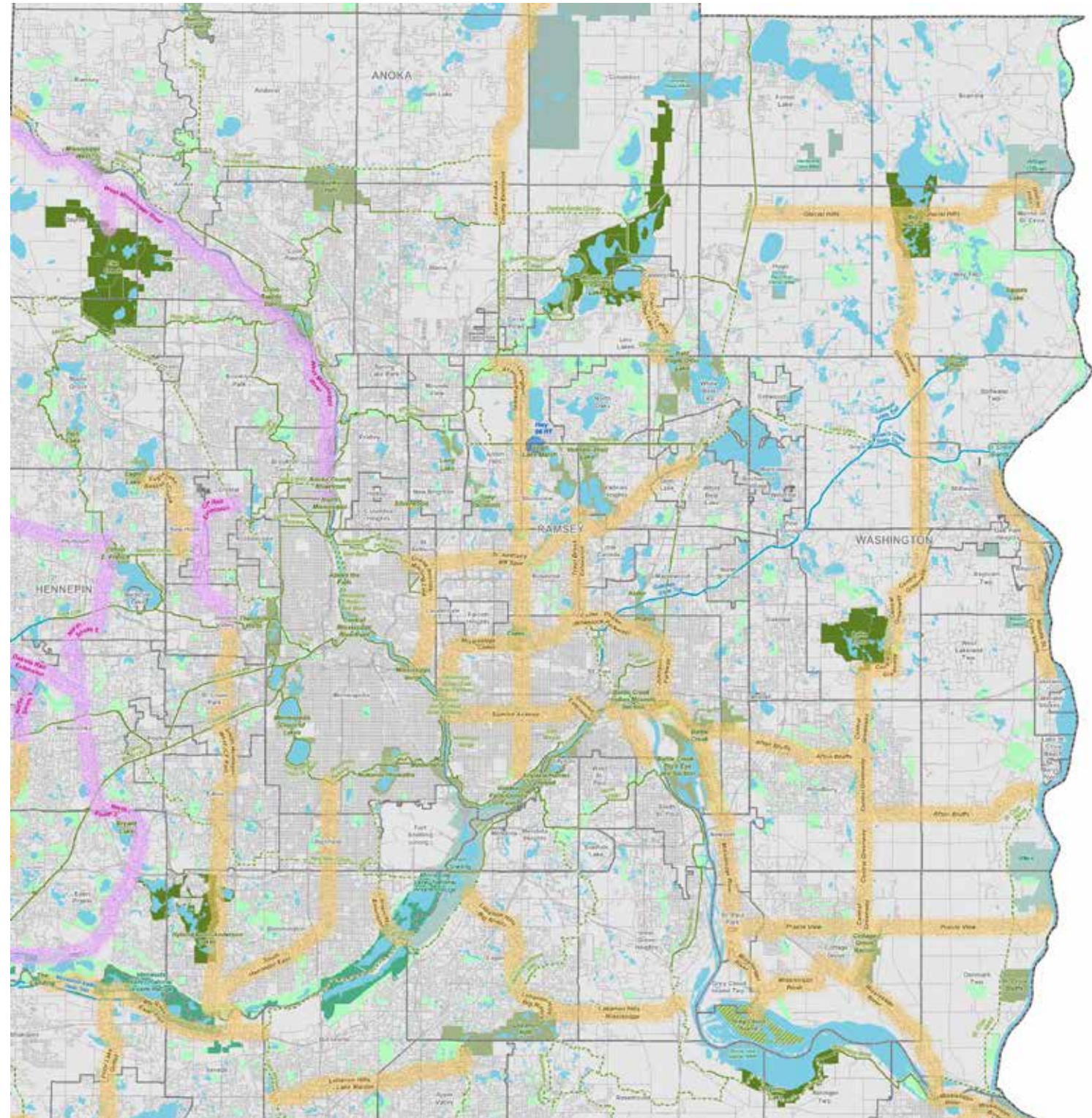
- Regional Park Boundary Adjustment
- Regional Park Search Area
- Regional Trail Search Corridors
- Regional Trails - 2040 System Additions

Non-Regional Recreation and Preserve Land

- MN Valley National Wildlife Refuge
- State Parks and Other Land
- Other DNR-Managed Land (labeled if 40 acres or greater)
- Other Local, City, County, State and Private Open Space (40 or more acres)
- Existing State Trails

Lakes and Major Rivers

NCompass Street Centerlines

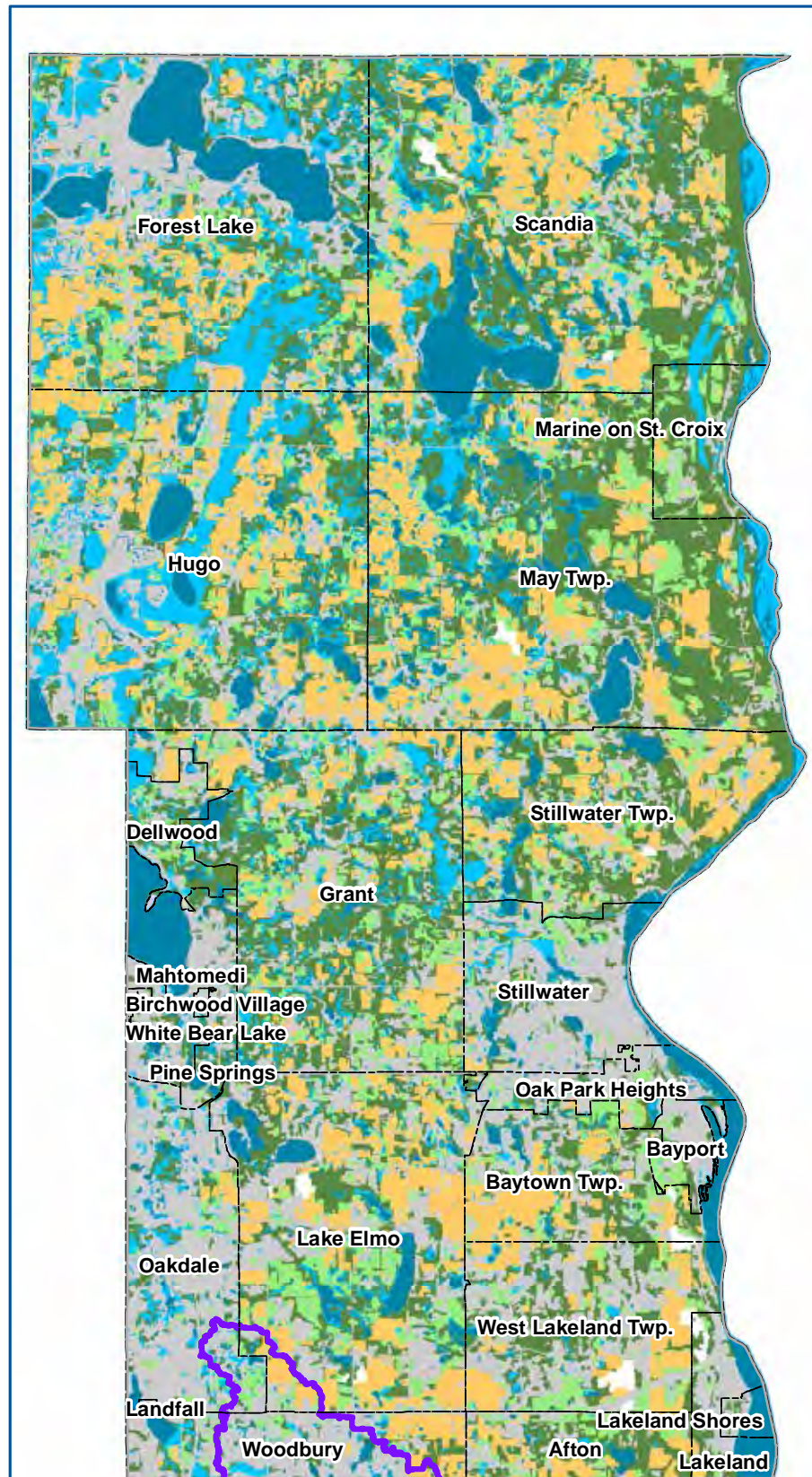


MAP SOURCE:

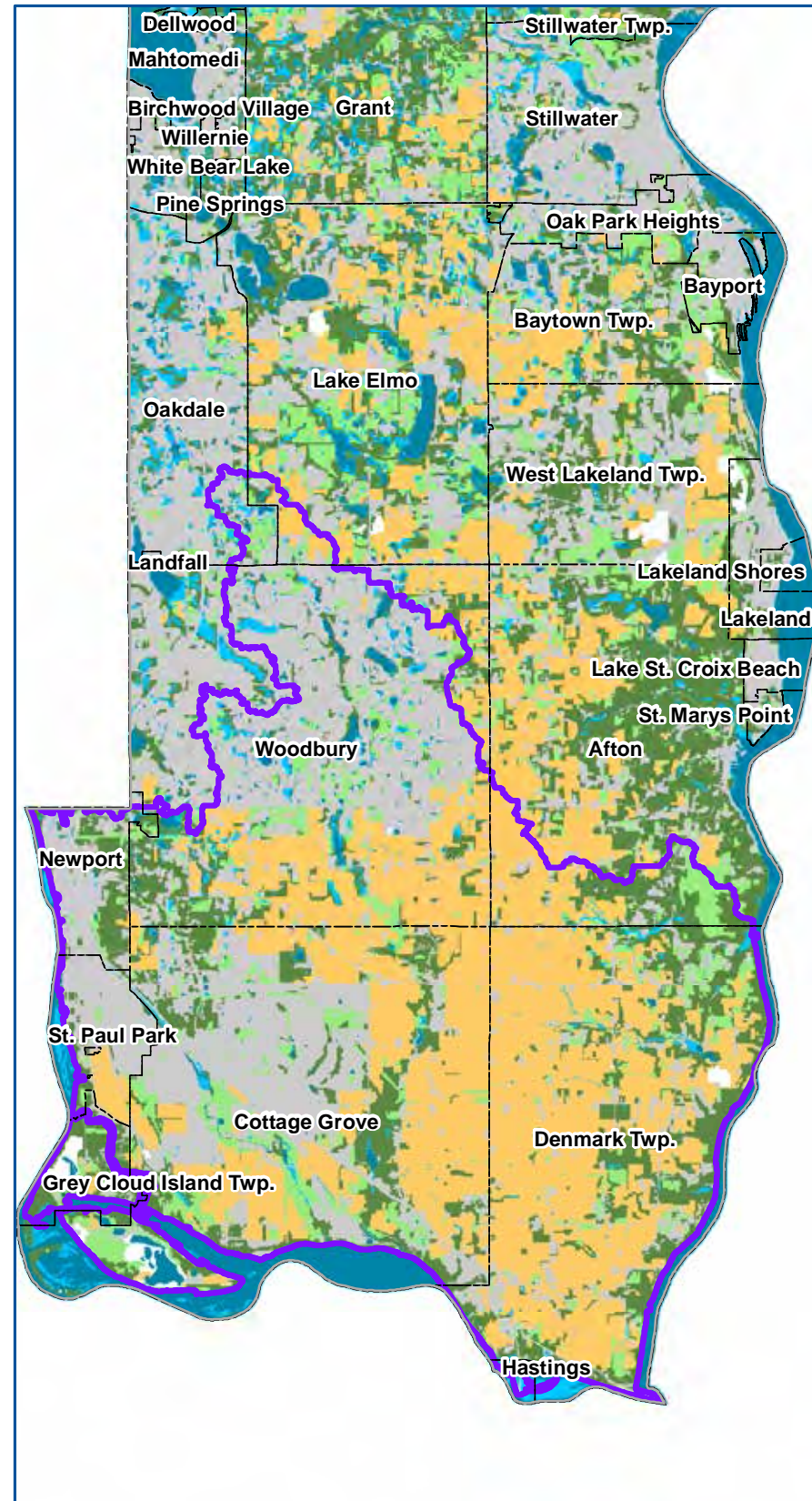


WASHINGTON COUNTY MAP OF GROUND COVERS

MAP SOURCE:
National Land Cover
Database 2011

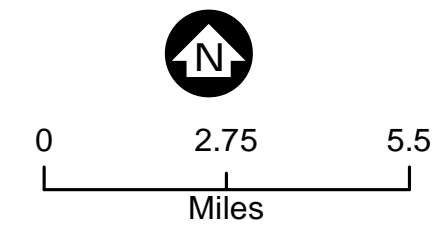


North Washington County



South Washington County

- Washington County
- City Boundaries
- SWWD
- Agriculture
- Forest
- Grass
- Lakes & Streams
- Urban / Developed
- Wetlands



Natural Environments
Building Community
Resilience Workshop

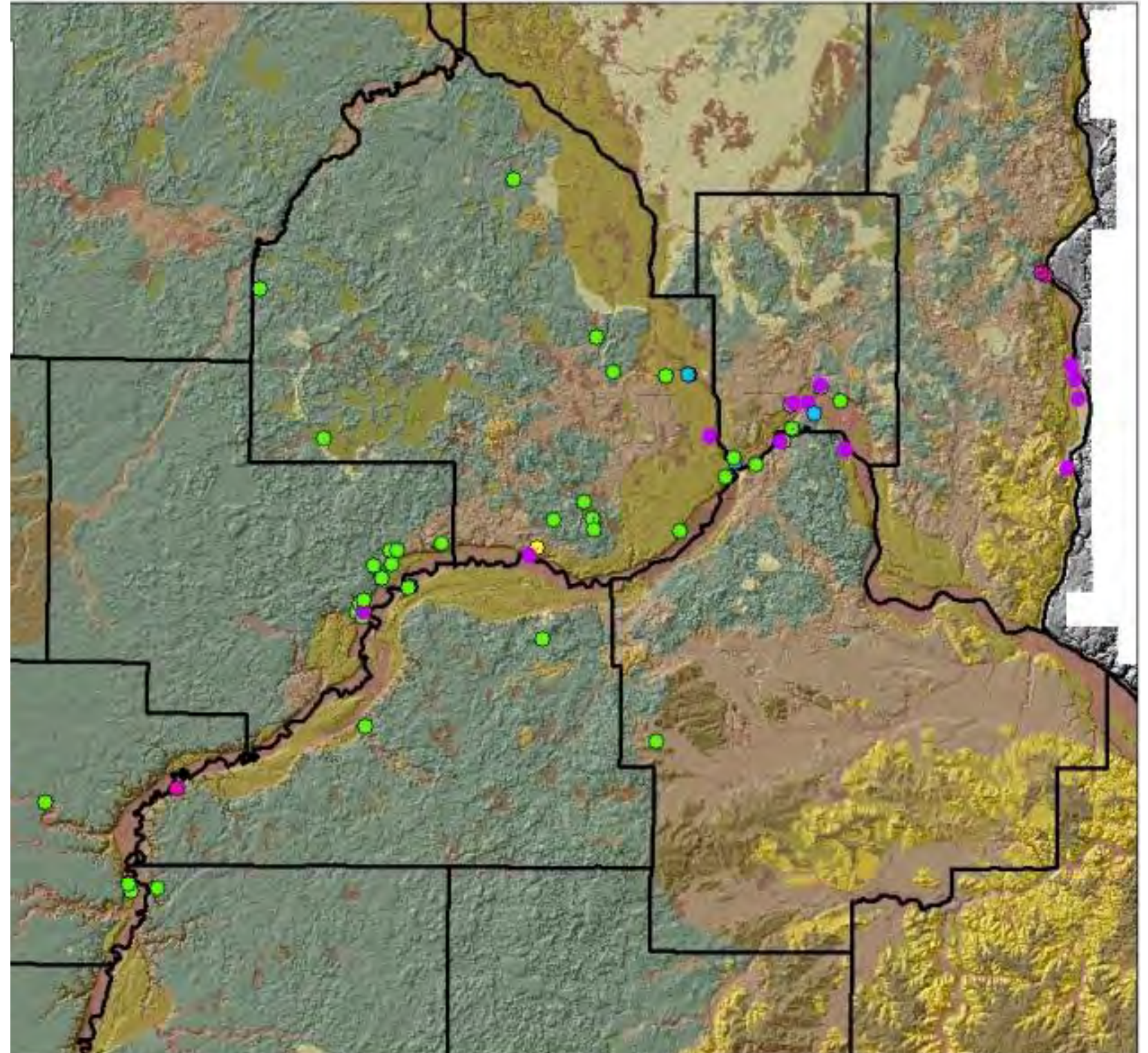


TWIN CITIES LANDSLIDE INVENTORY MAP

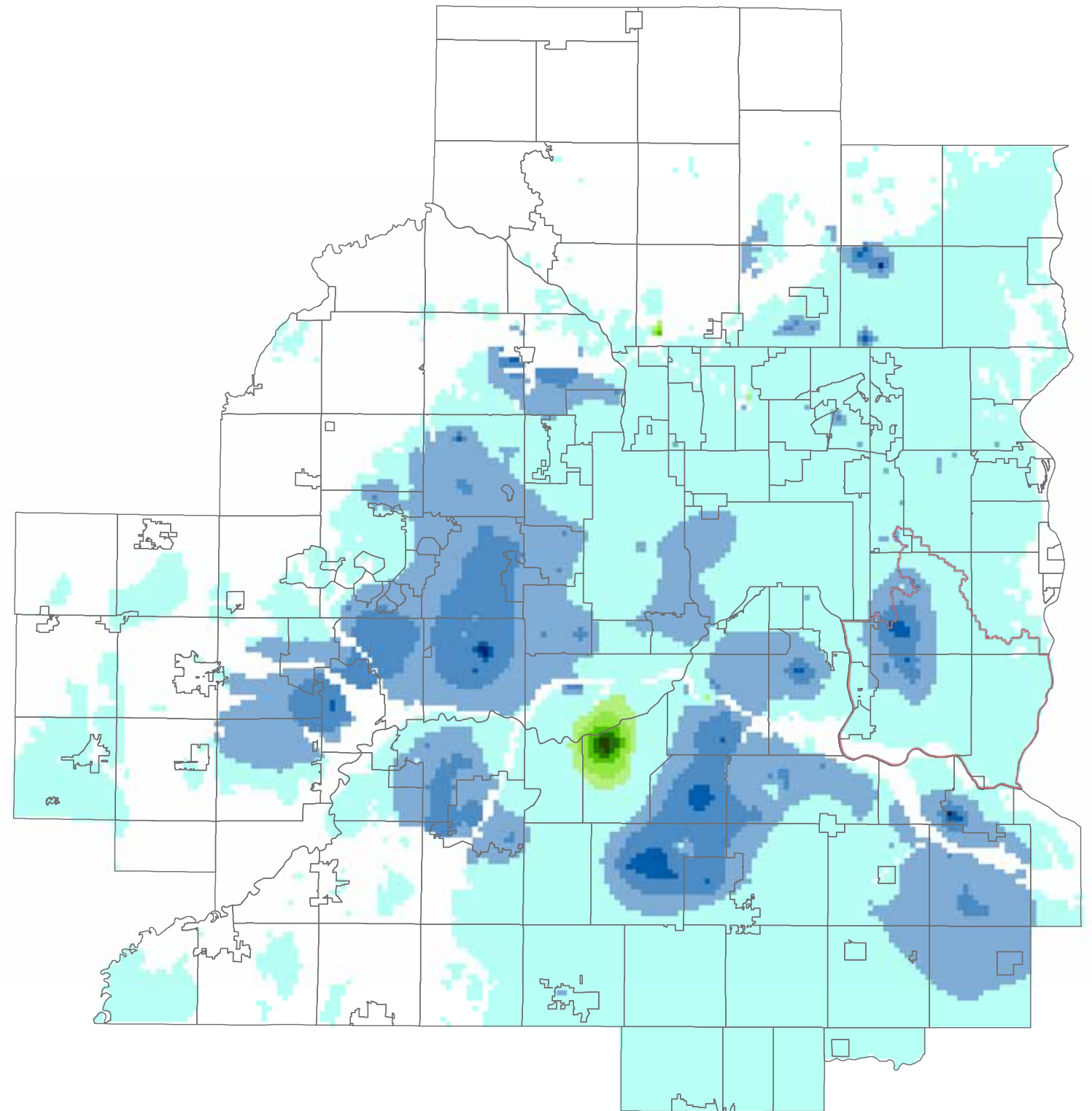
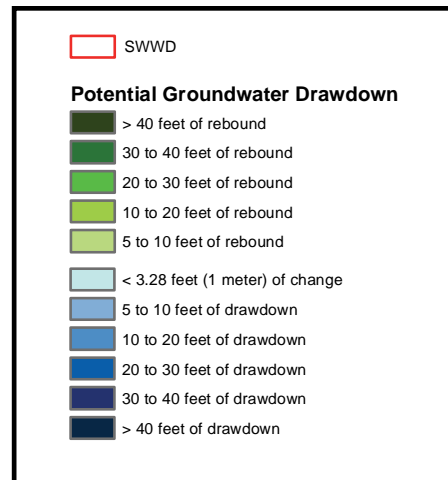
Landslide Inventory

Style

- Complex
- Dry flow
- Translational
- Rotational
- Topple
- Unknown



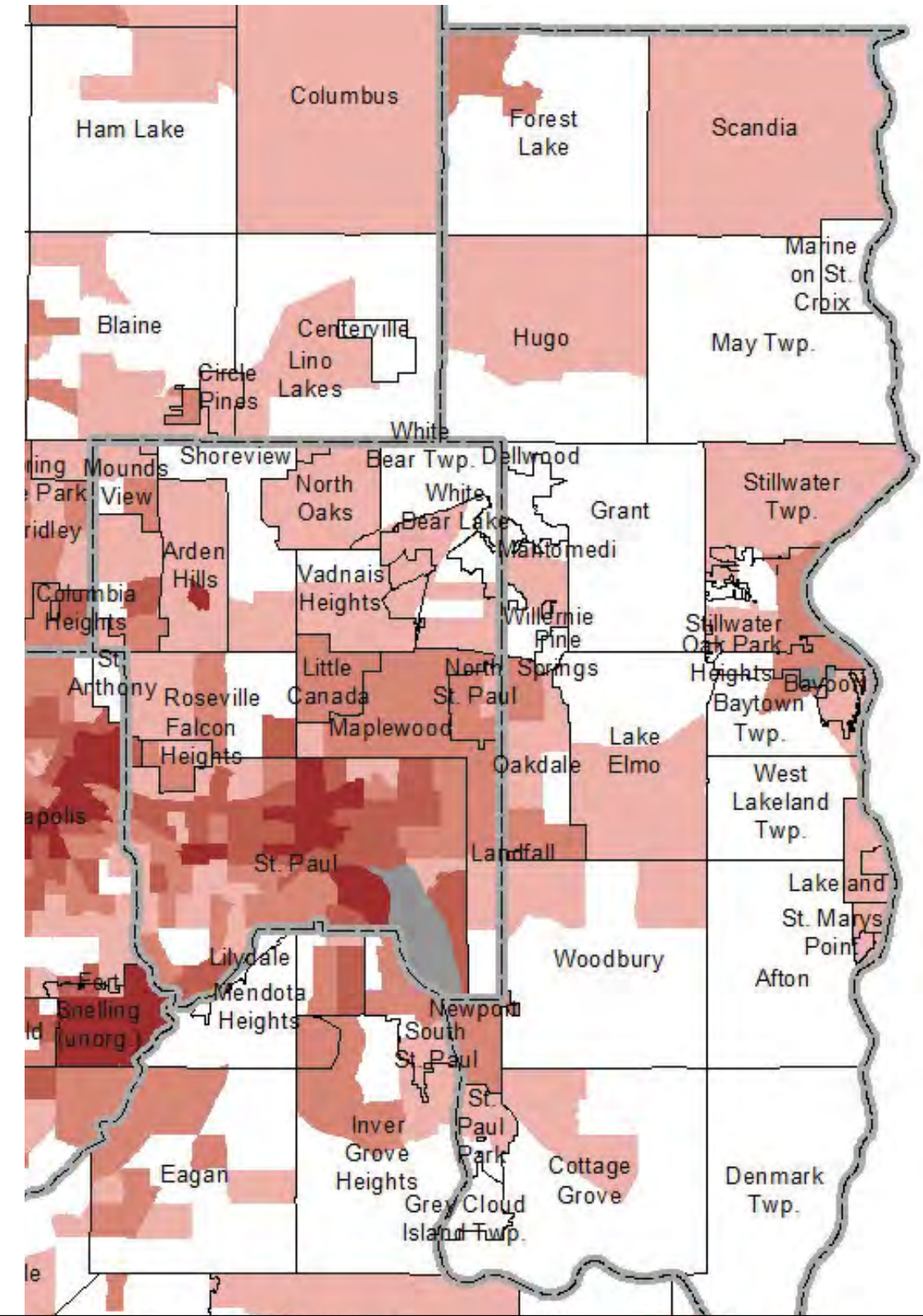
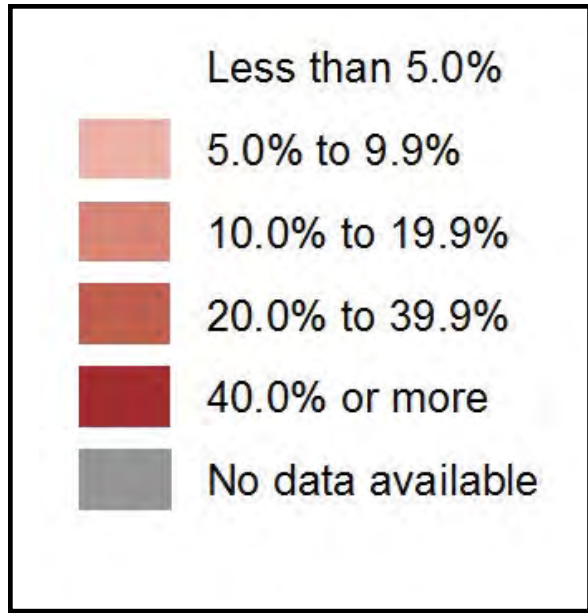
TWIN CITIES POTENTIAL GROUNDWATER LEVEL DECLINES UNDER PROJECTED 2040 PUMPING CONDITIONS (PRAIRIE DU CHIEN-JORDAN AQUIFER)



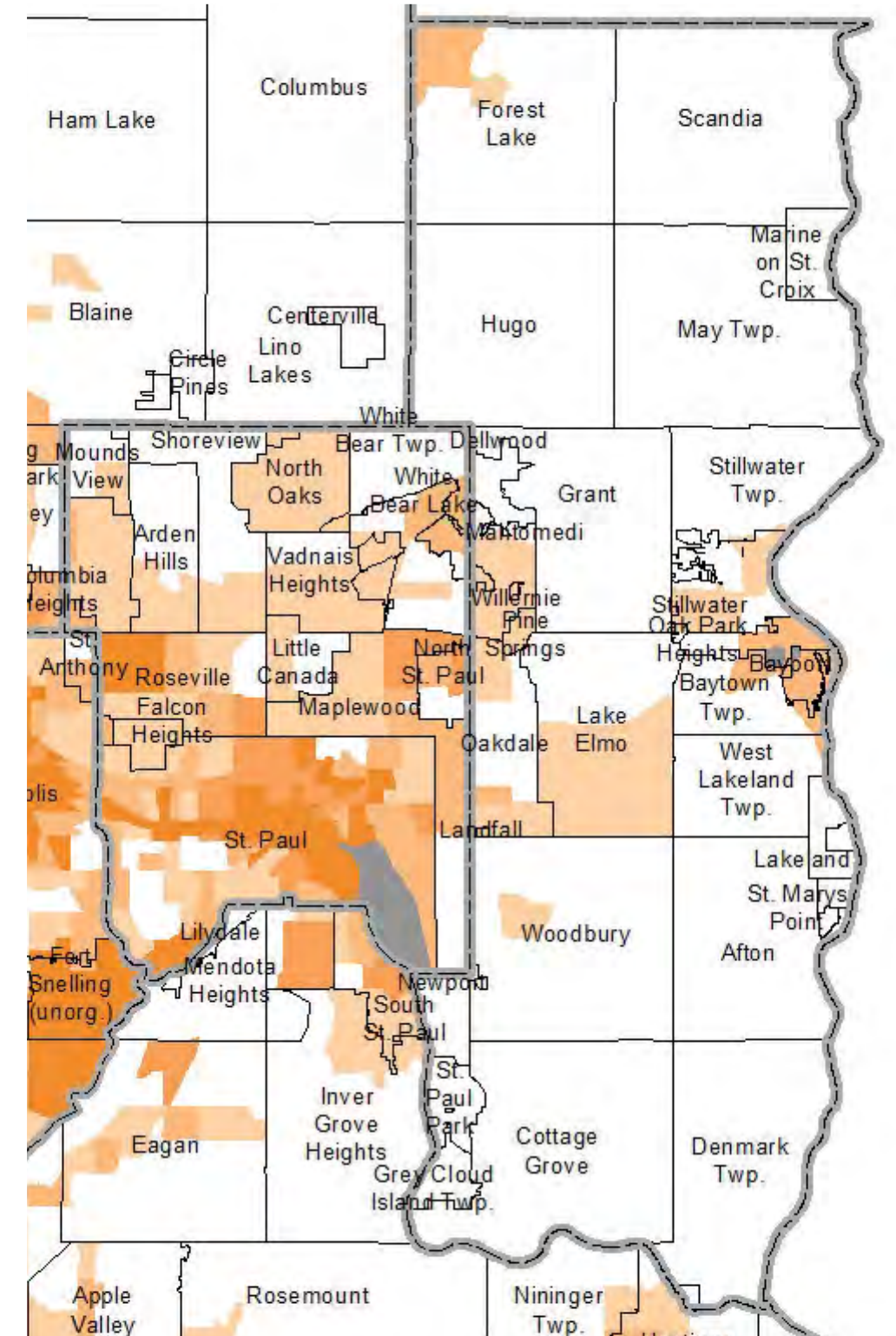
MAP SOURCE:



TWIN CITIES METROPOLITAN AREA POVERTY RATES (AN INCOME OF \$20,420 OR BELOW FOR A FAMILY OF 3) - CENSUS TRACT 2008-2012



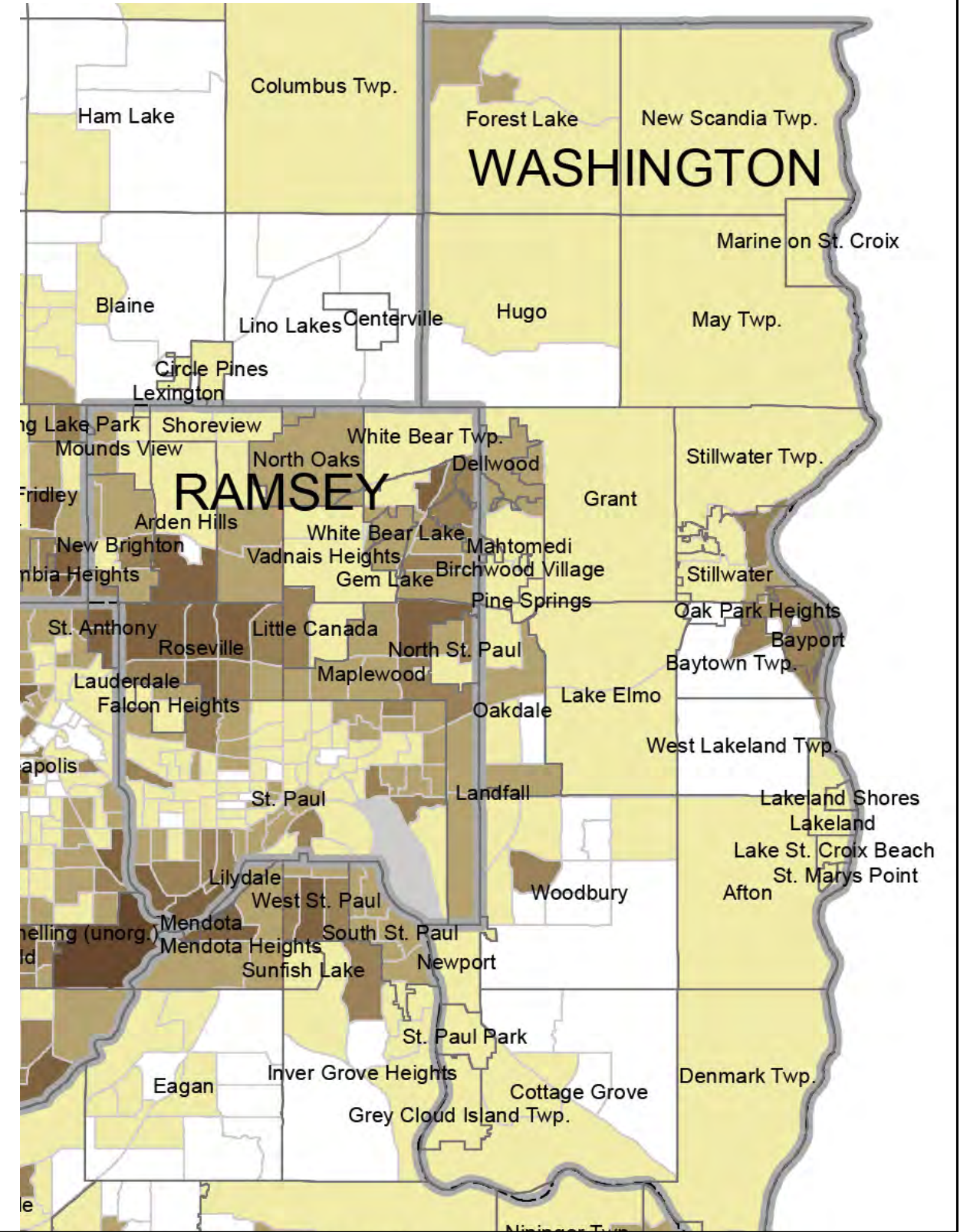
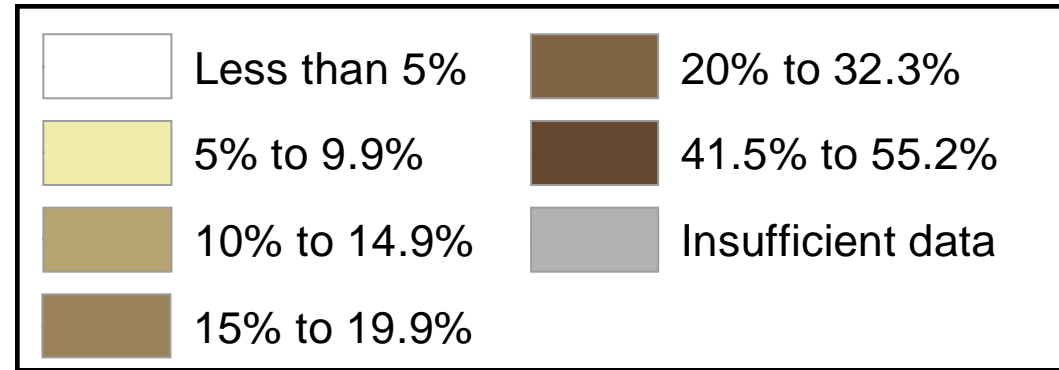
WASHINGTON COUNTY MAP OF HOUSEHOLDS WITHOUT A VEHICLE - CENSUS TRACT 2008-2012



MAP SOURCE:



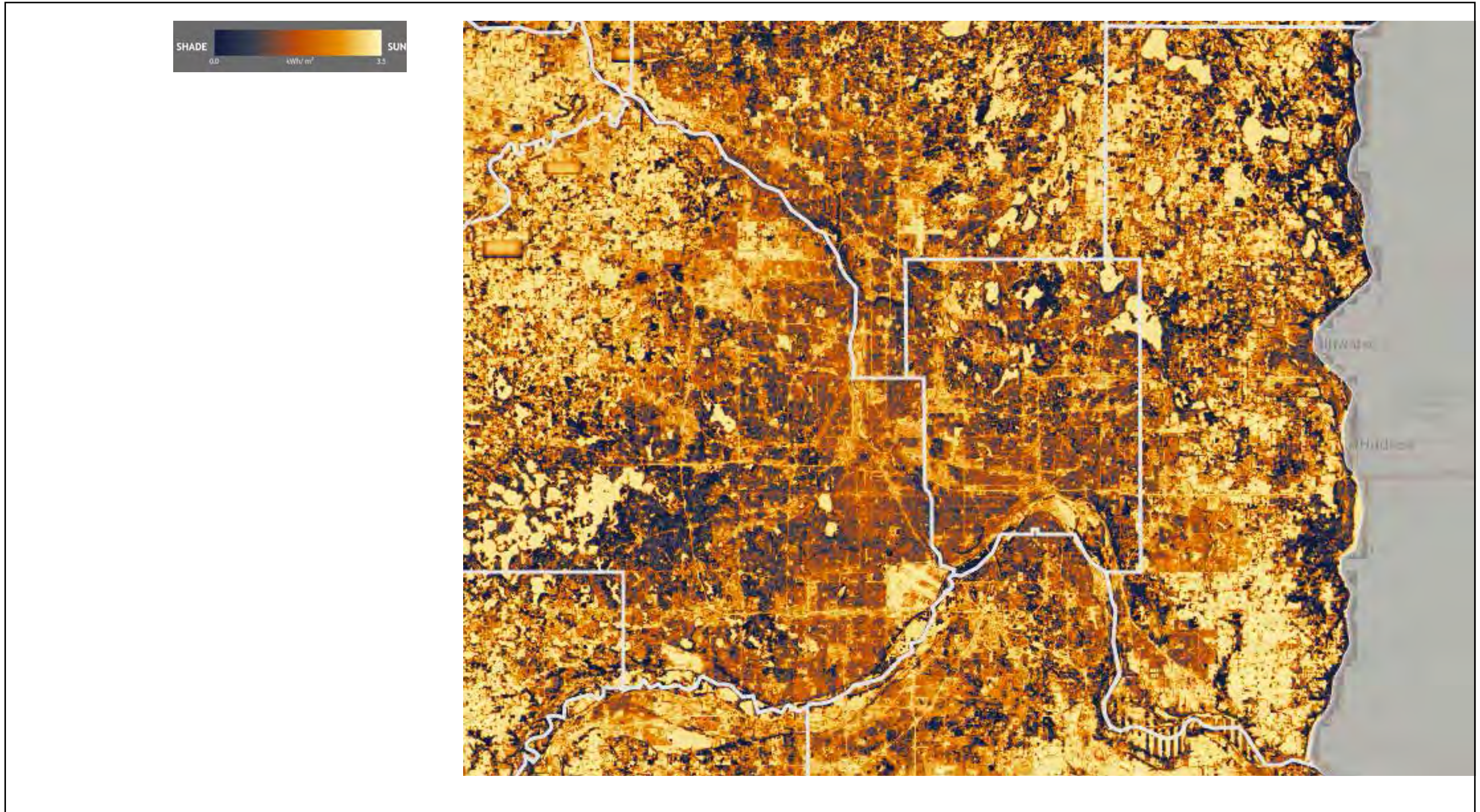
WASHINGTON COUNTY DEMOGRAPHIC MAP - POPULATION AGE 65 AND OVER - TWIN CITIES METRO - 2000 CENSUS TRACT



MAP SOURCE:

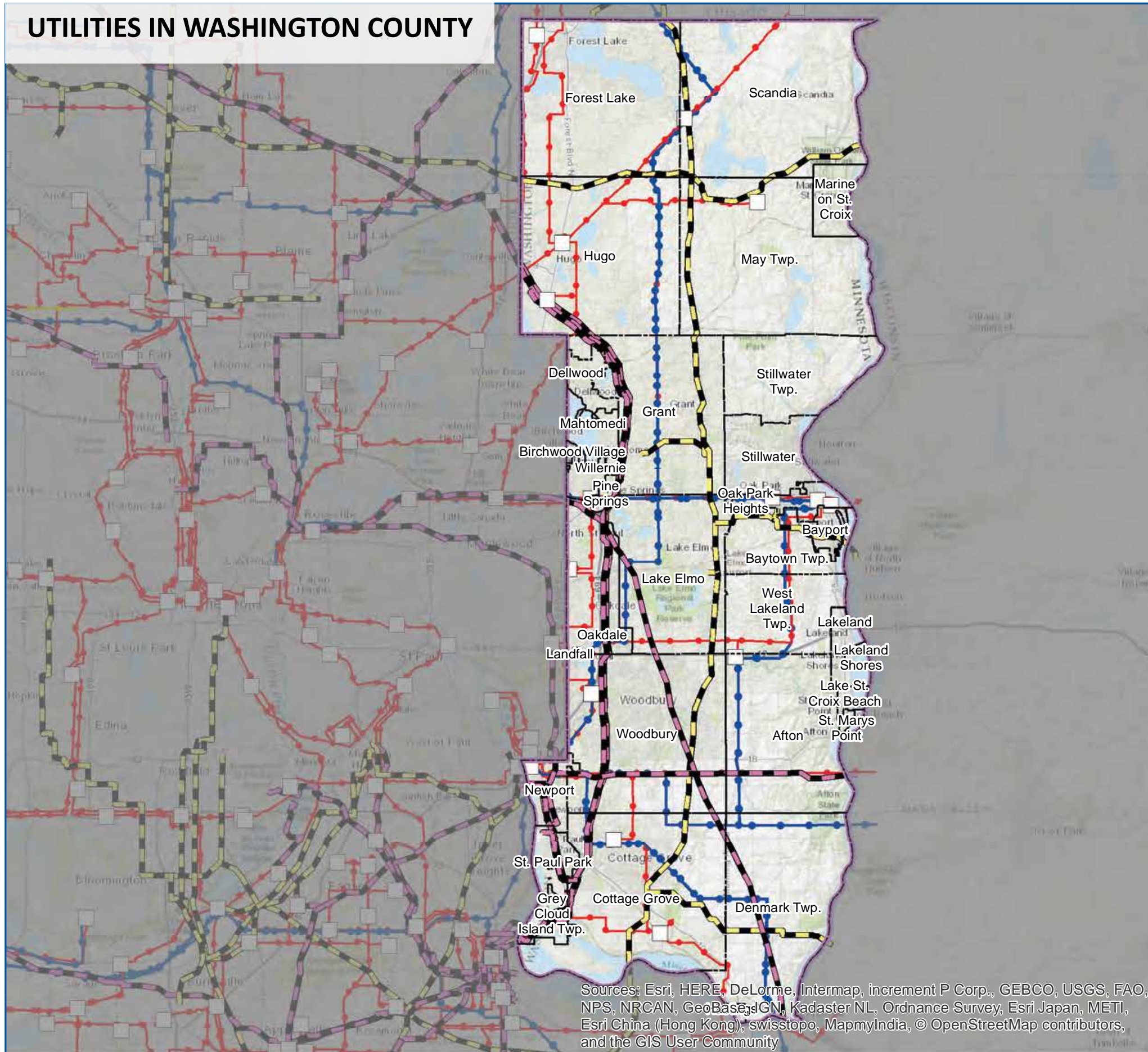


SOLAR RESOURCE AVAILABILITY IN THE TWIN CITIES



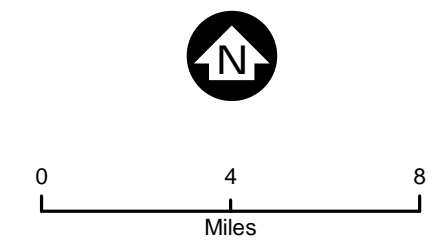
MAP SOURCE: mn.gov/solarapp

UTILITIES IN WASHINGTON COUNTY



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

- City Boundries
 - Washington County
 - Substations
 - Natural Gas Pipeline
 - Petroleum Pipeline
- Electric Transmission Lines
- 0 - 33kV
 - 34kV - 115kV
 - 116kV - 500kV



Utilities

Building Community Resilience Workshop

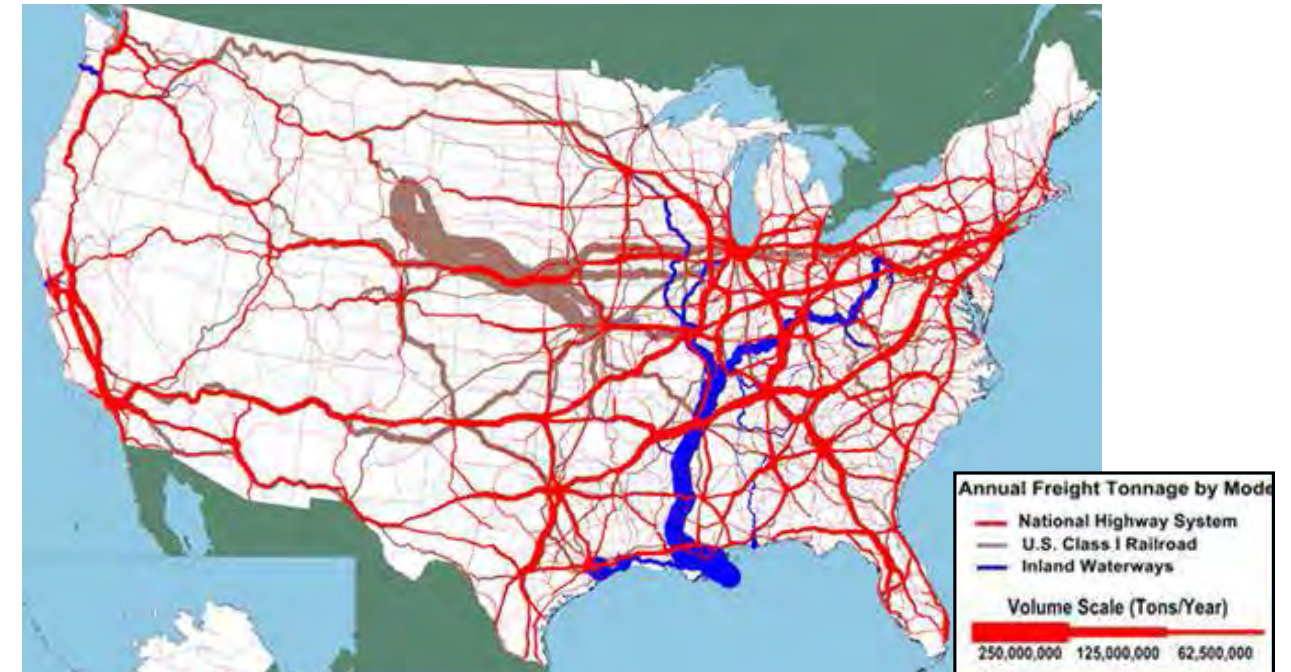
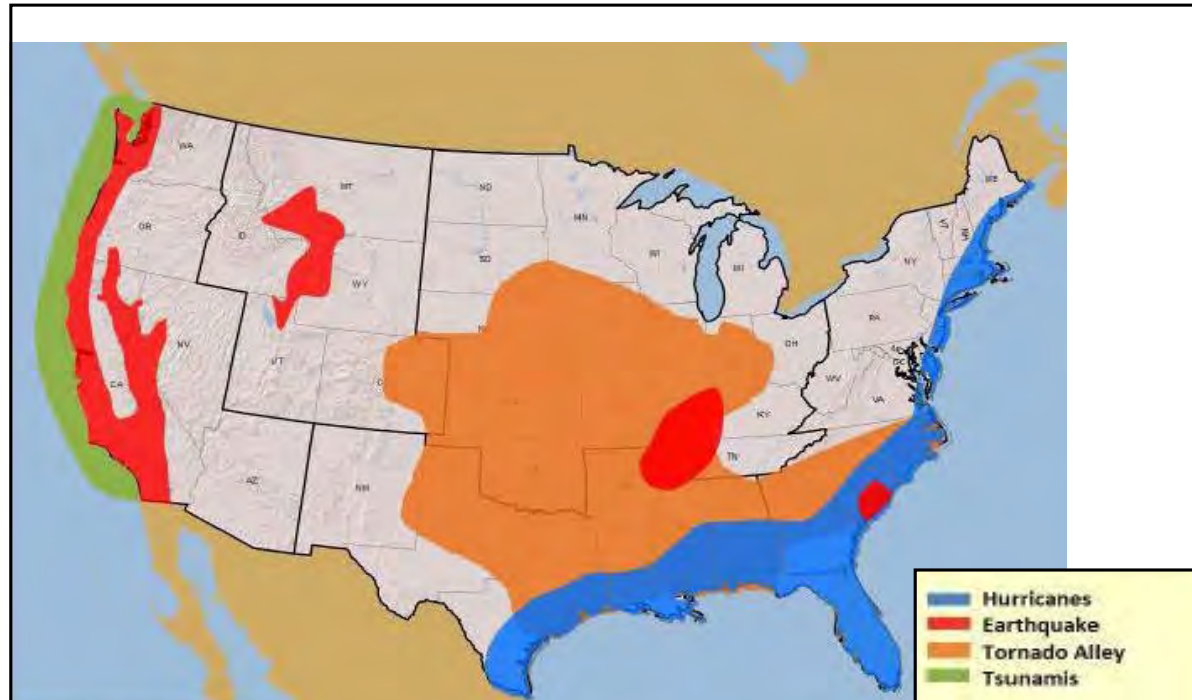
MAP SOURCE:
 Gas and Petroleum Pipelines: U.S. Dept. of Transportation - Pipeline and Hazardous Materials Safety Administration (PHMSA)

Electric Transmission Lines and Substations: The Minnesota Electric Transmission Mapping Project is a collaborative effort between the Minnesota Department of Commerce and the Minnesota Geospatial Information Office.

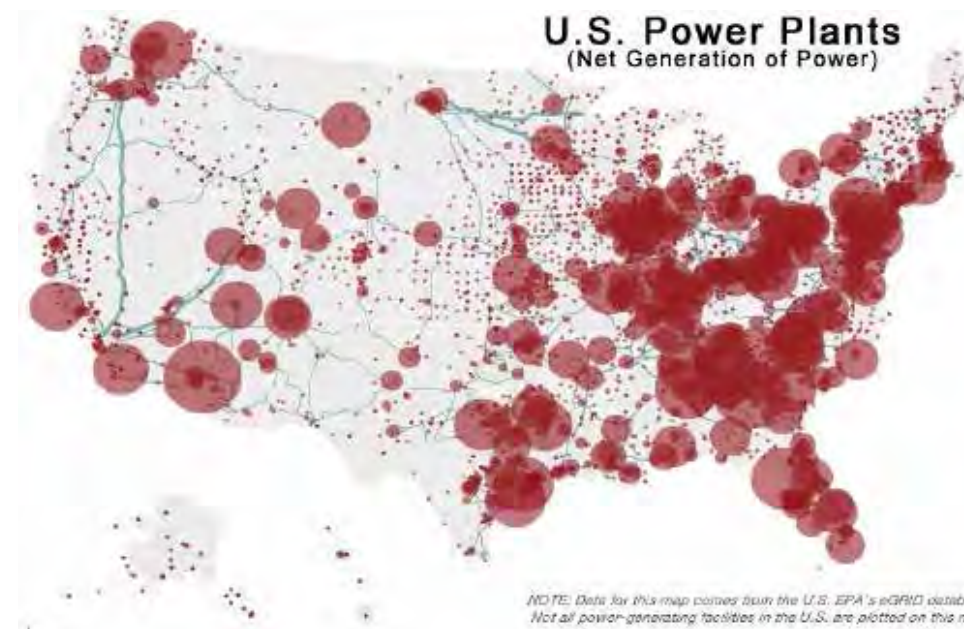


CLIMATE RISK EXISTS ACROSS ENTIRE SUPPLY CHAIN NETWORK

AFFORDABILITY AND RELIABILITY OF ELECTRICITY, FUEL, AND FOOD ARE AFFECTED BY IMPACTS ELSEWHERE



AFFORDABILITY AND RELIABILITY OF ELECTRICITY, FUEL, AND FOOD ARE AFFECTED BY IMPACTS ELSEWHERE



MAP SOURCE:

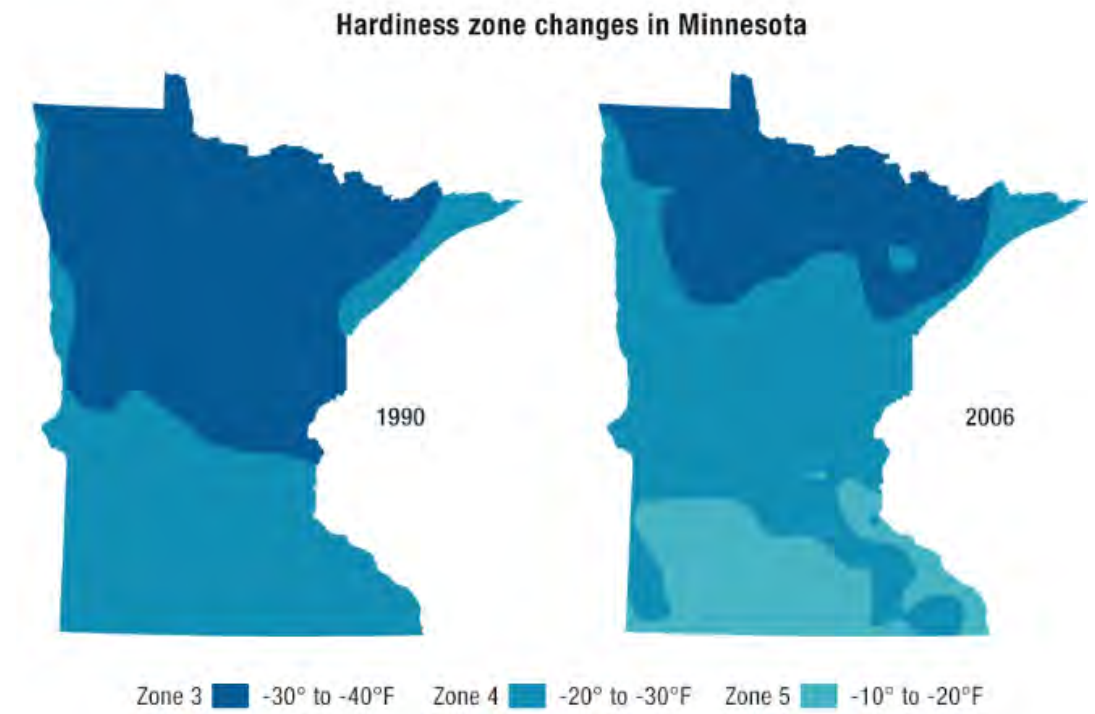


US Department of Transportation;
http://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/images/hi_res_jpg/tonhwyrww2007.jpg

US ENVIRONMENTAL PROTECTION AGENCY



CHANGE IN PLANT HARDINESS ZONES IN MINNESOTA (1990-2006)



CHANGE IN RAGWEED POLLEN SEASON 1995-2013

