A photograph of a bicycle path under a bridge. Two cyclists are riding away from the camera. The path is paved and has a metal railing on the right side. The bridge above is made of concrete and has several support pillars. The background shows green foliage.

REGIONAL BICYCLE BARRIERS STUDY UPDATE

Technical Advisory Board

June 12, 2019

Study Background

General Study Tasks

- Define regional physical barriers to bicycling & analyze where they most impact continuity of regional and local bicycle networks
- Assess existing and potential bicycle crossing opportunities of regional barriers
- Prioritize barrier crossing improvement locations based on data-driven analysis

Study Background

Timeline

- Regional Bicycle Barriers Study (RBBS) Oct 2016 to March 2018
- Study process and results presented to TAC Committees during study process
- Presented conceptual study results at TAC & TAB as part of 2018 TPP Update
- Conducted review of points and barriers & updated analysis from earlier study (April 2019)

Technical Advisory Work Group

- Metropolitan Council, MnDOT
- Metro counties (7)
- Core cities (2)
- Suburban cities (4)
- Bicycle advocacy groups (2)
- Regional Park agencies (3)
- Active Living agency (1)

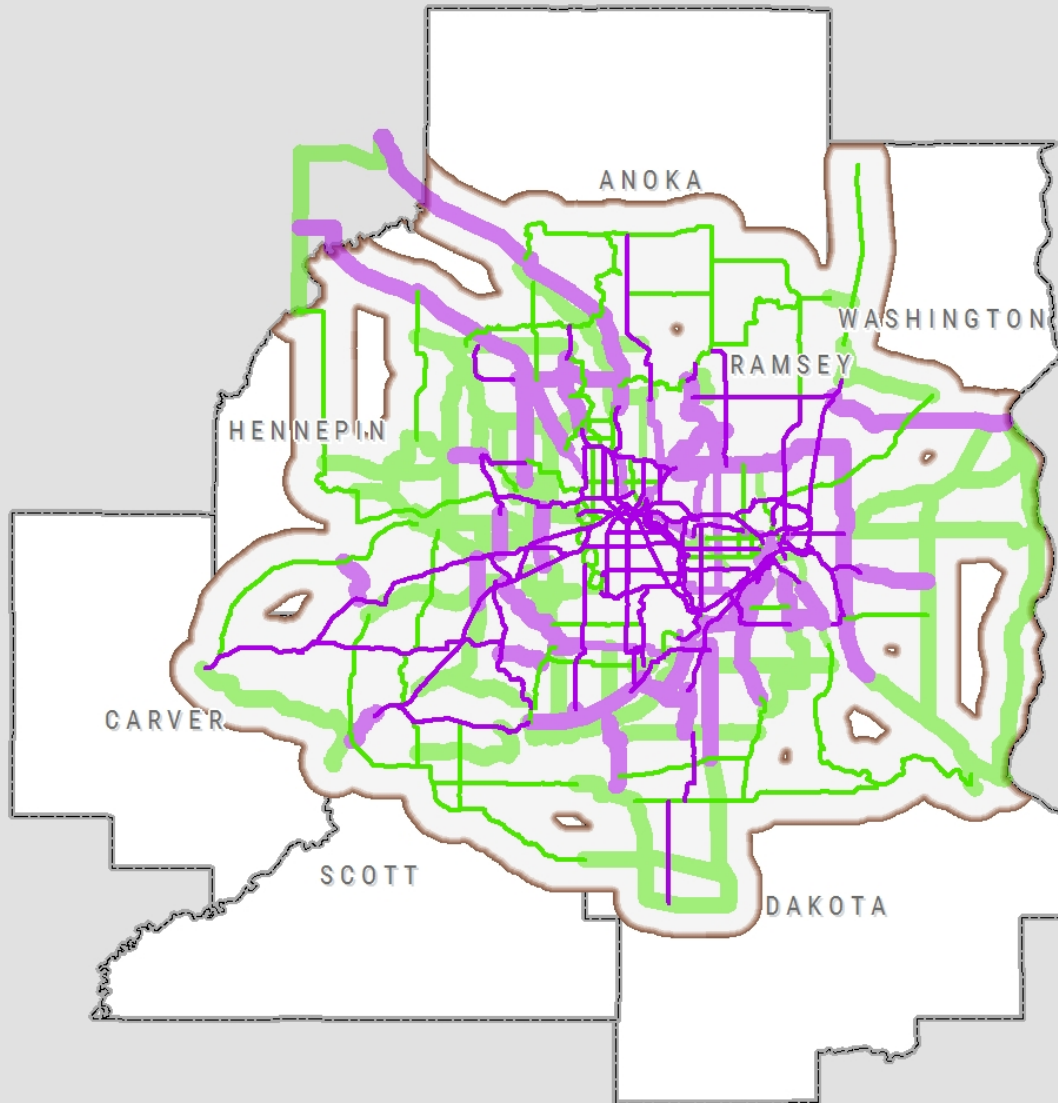
Study Background

Study Work Scope

Considered major *physical* regional barriers to bicycle travel including:

- Freeways and expressways
- Railroad corridors
- Secondary rivers & streams

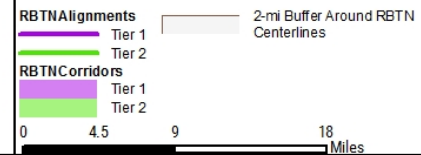




Twin Cities Metro Region

Study Area

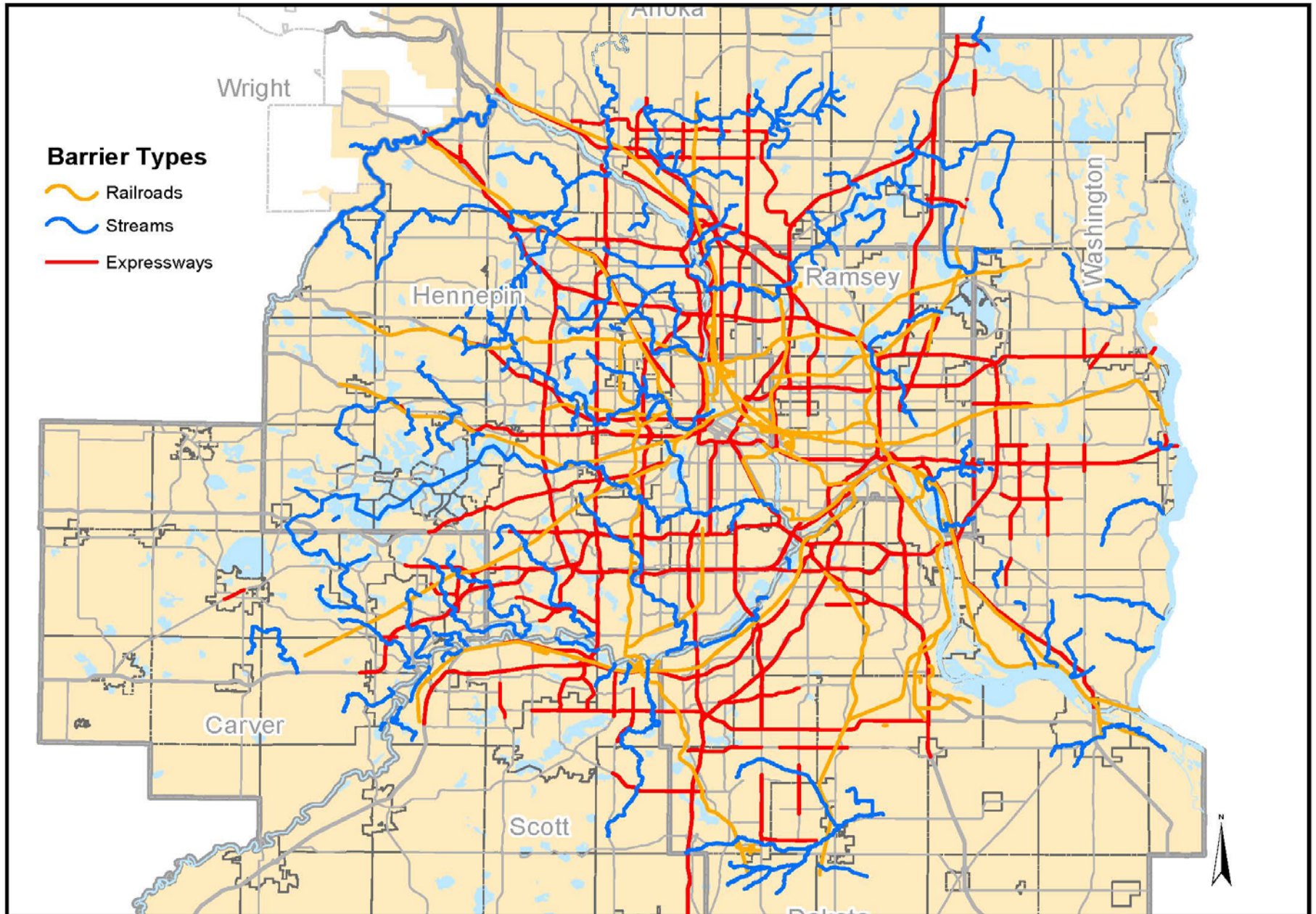
Regional Bicycle Barriers Study



Date: 11/1/2016



Regional Bicycle Barriers



Reg. Barriers Study Crossing Points

Four Barrier Crossing Point Types

- Identified in local plans
- On RBTN corridors/alignments or on planned regional trails
- Opportunity crossings from public workshops & on-line wikimap survey
- To maintain adequate spacing

Equal consideration given to points on local & regional systems



Analysis Factors & Measures

Network connectivity (48%)

- Proximity to local networks
- Proximity to RBTN/Reg. trails
- Distance to nearest crossing

Bicycle trip demand (24%)

- 2040 Pop./employment density
- Proximity to schools/colleges
- Proximity to Regional Parks

Safety/existing cond's (15%)

- Bike/Ped crashes w/in 500 ft
- Bike/walk mode share
- 2014 Pop./employment density

Social equity (12%)

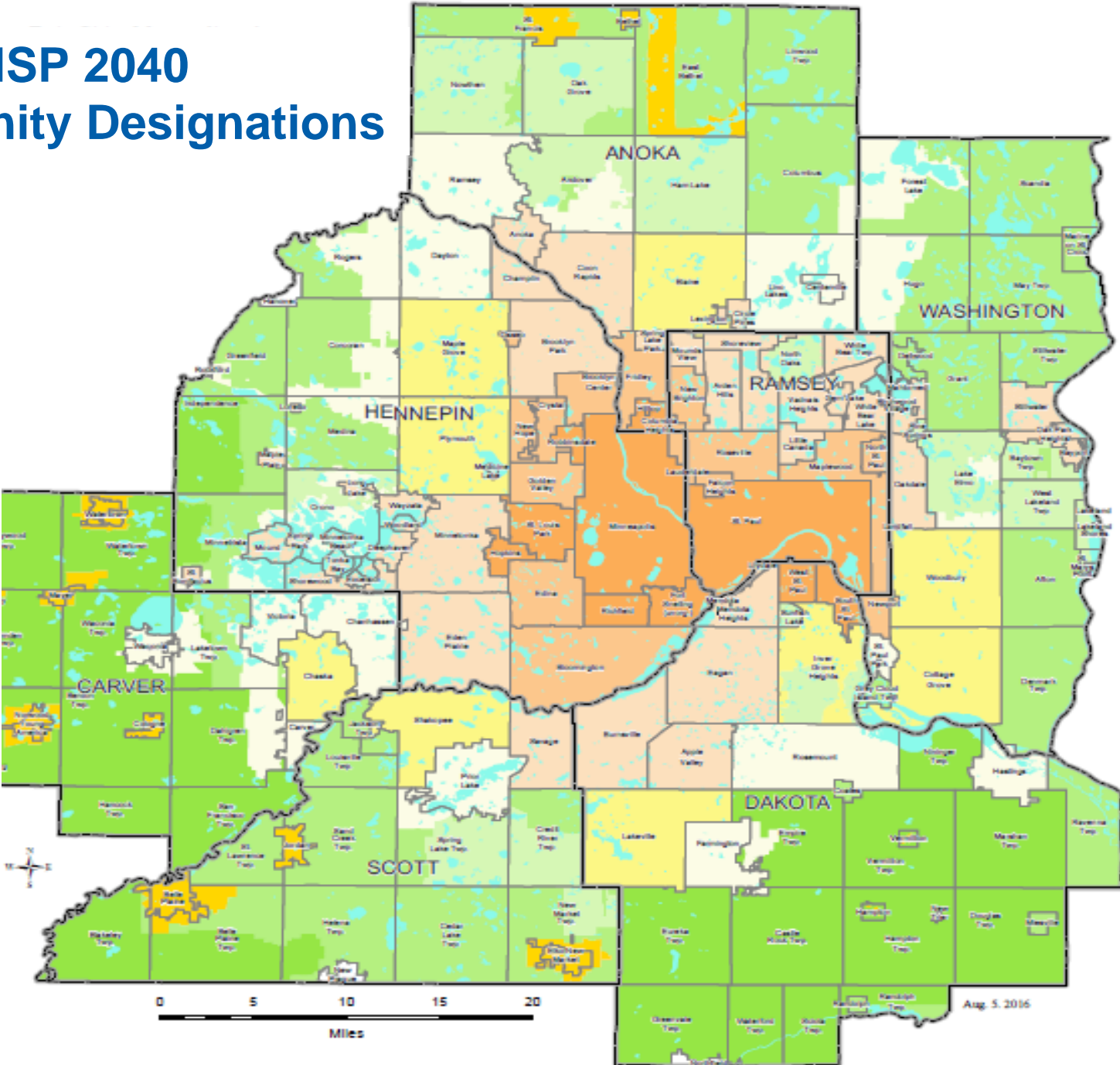
- % Pop. under age 15/over 65
- % Zero-car households
- Areas of Concentrated Poverty

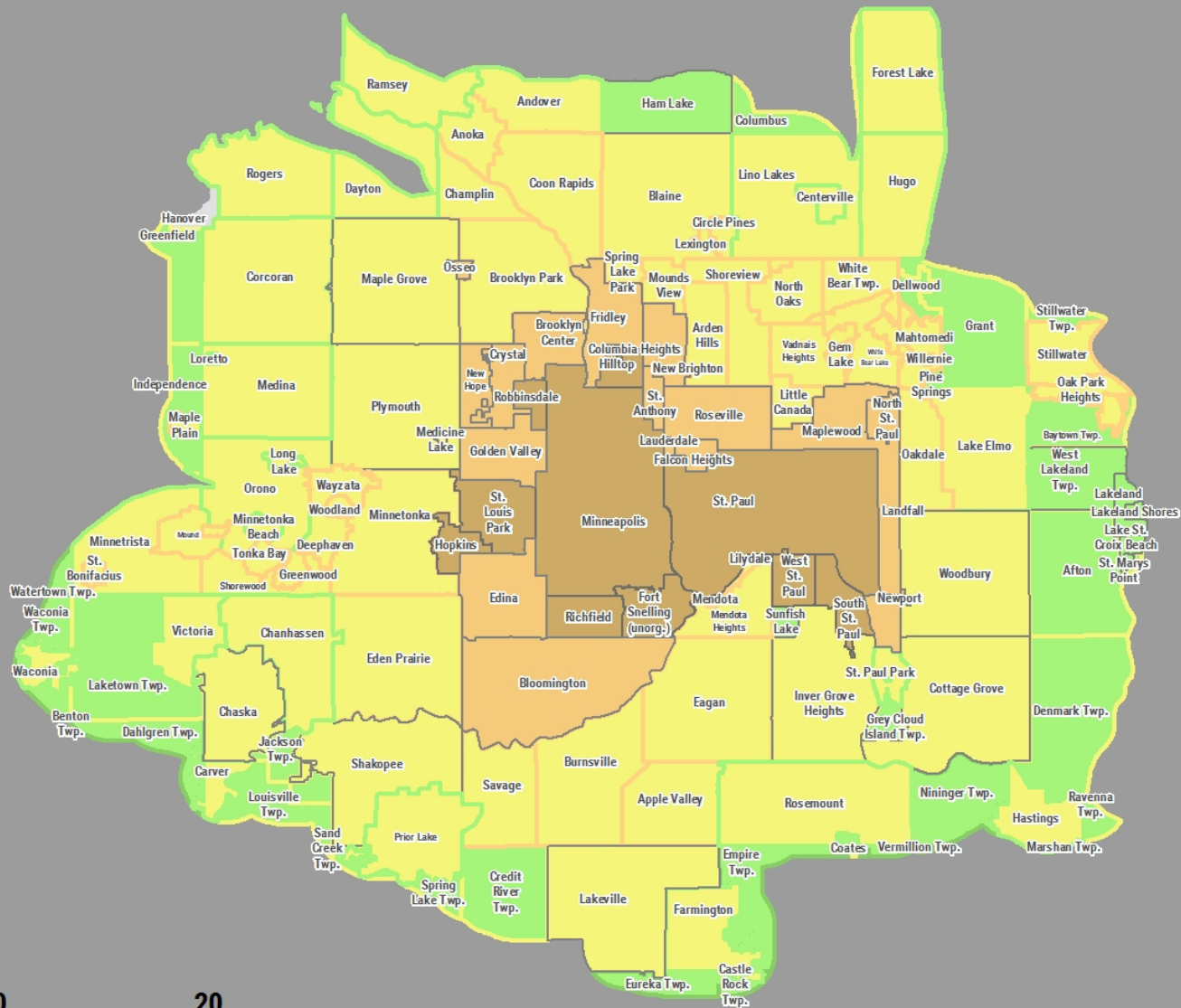
Reg. Bike Barrier Crossing Spacing

Thrive Planning Areas	Preferred Maximum Distance bet. regional bike barrier crossings	Example Cities
Urban Center	1/2-mile	Minneapolis, St Paul, Richfield, Hopkins, South St Paul
Urban	3/4-mile	Golden Valley, Roseville, Maplewood, Crystal, Edina, North St Paul
Suburban, Suburban Edge, Emerging Suburban Edge	1 mile	Blaine, Woodbury, Maple Grove, Eagan, Lakeville
Rural Residential, Diversified Rural, Agriculture	2 miles	Grant, Afton, Ham Lake, Empire Twp., Columbus



Thrive MSP 2040 Community Designations





Twin Cities Metro Region



ThriveMSP 2040 Community Designations

color coded by categories used to
apply barrier crossing spacing criteria

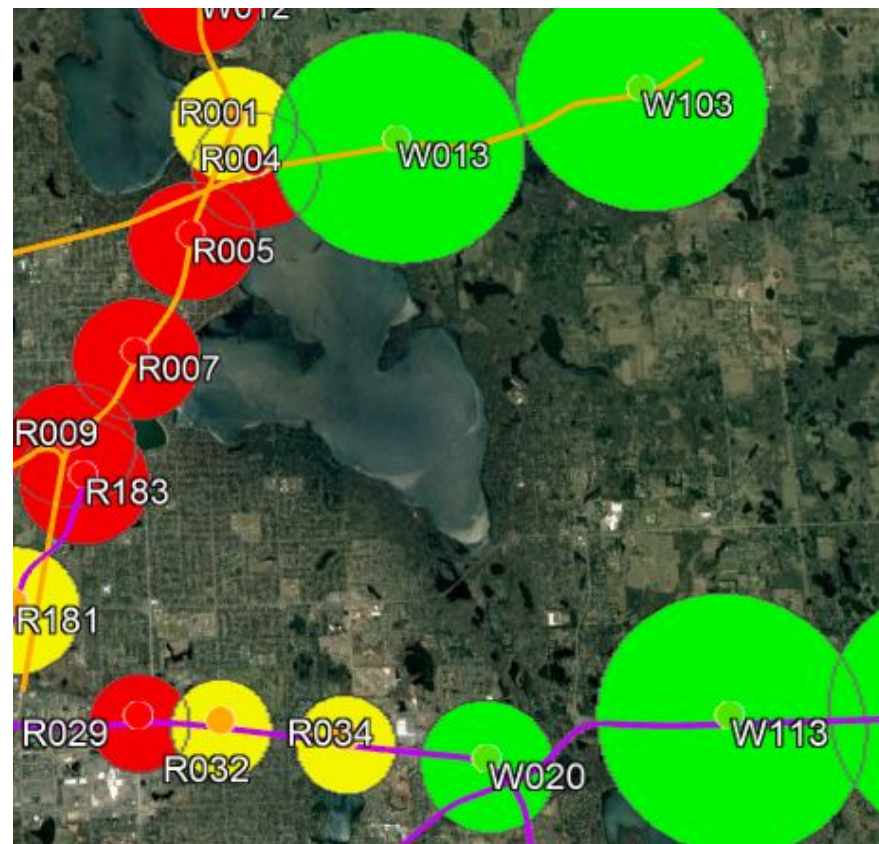
23: Urban Center	25: Suburban	51: Diversified Rural
24: Urban	35: Suburban Edge	52: Rural Residential
24: Urban	36: Emerging Suburban Edge	53: Agricultural



Date: 12/18/2016

Regional Barrier Crossing Improvement Areas

- Diameters vary by Thrive community designation grouping
- Diameters correspond to preferred spacing criteria
- Barrier segments passing thru barrier crossing improvement areas are where future crossing projects may be desired



RBBS Analysis Update

Update Analysis Work Steps

- Review & amend Expressway barriers
- Re-assess spacing of points along barriers
- Add or combine points as needed
- Add new planned crossing points where applicable

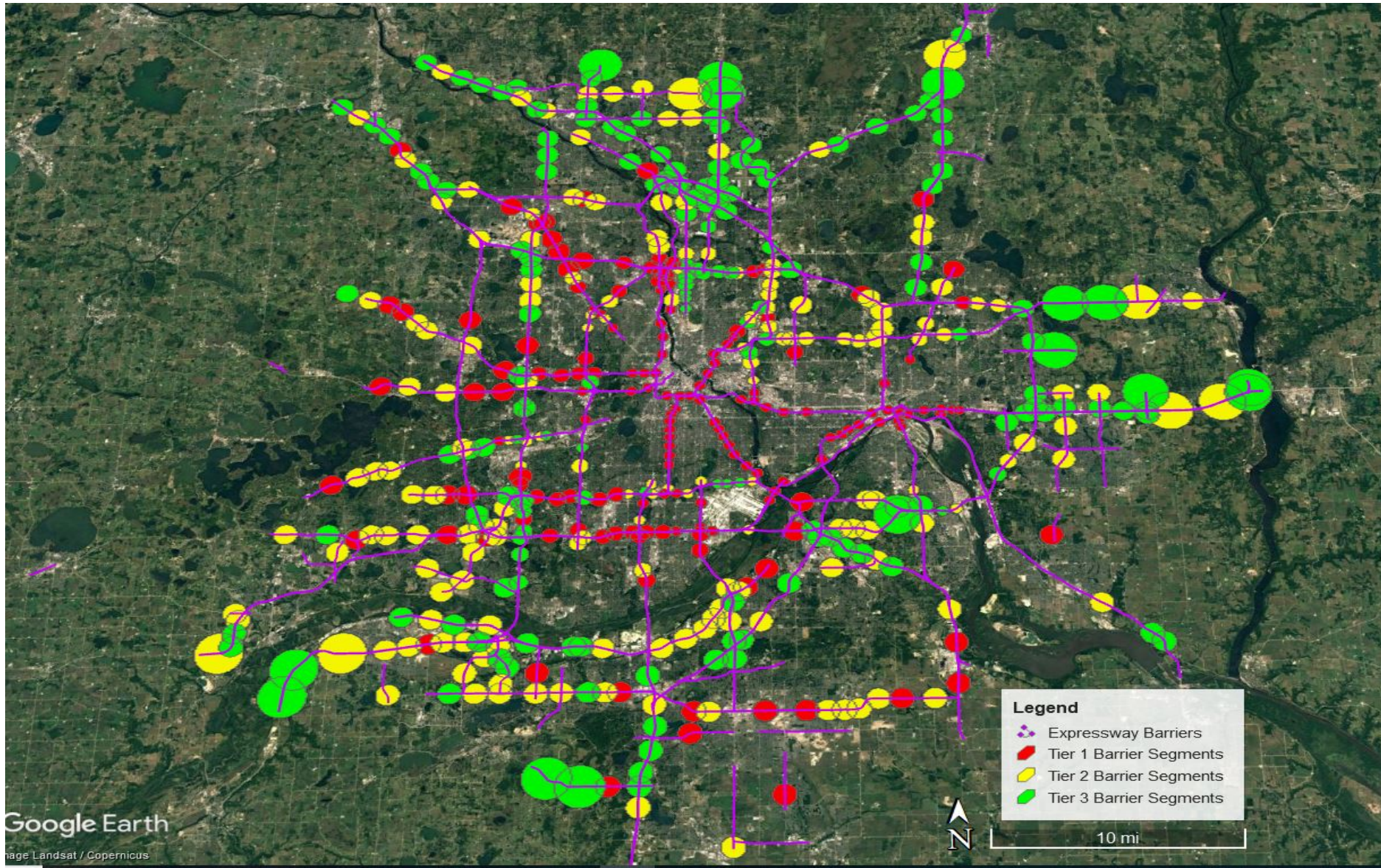
RBBS Update Analysis Results

- Initial Study analyzed ~ 1200 crossing pts
- Final analysis left 755 ranked crossing pts

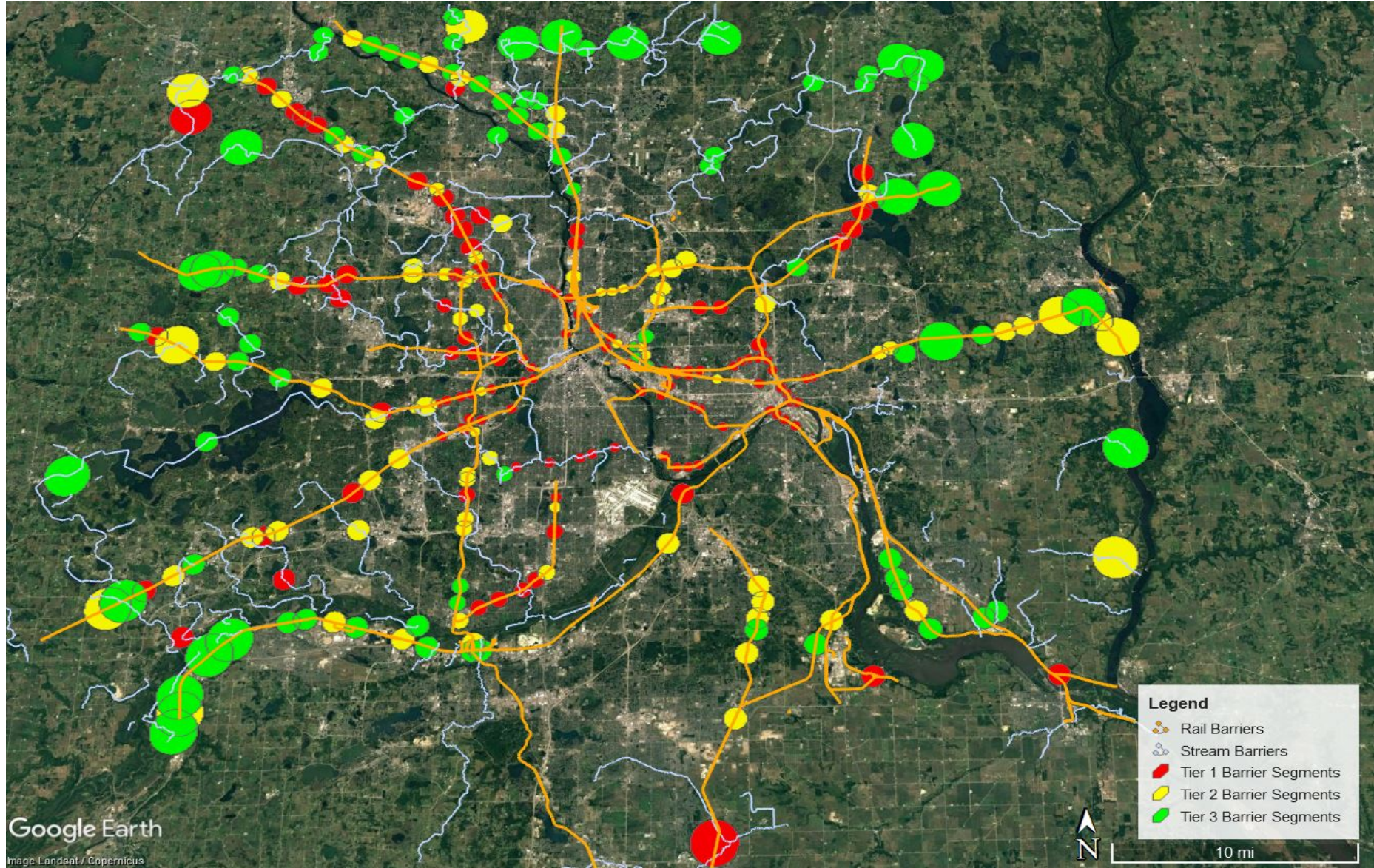
Priority Tiers:

- **Tier 1** – crossing areas ranked 1 to 267
- **Tier 2** – crossing areas ranked 268 to 519
- **Tier 3** – crossing areas ranked 520 above

Regional Bicycle Barrier Crossing Improvement Areas: **Freeways/Expressways**



Regional Bicycle Barrier Crossing Improvement Areas: Railroads & Streams



Relevance to Local Plans and Council Processes

- Updated regional bicycle barriers and prioritized barrier crossing improvement area segments:
 - Will be proposed to supplement Regional Solicitation criteria to select projects for federal transportation funds
 - May inform future local bikeway and regional park agency trail plans
 - Will be proposed for inclusion in next TPP update