Regional Bicycle Barriers Study Update

Technical Advisory Board

July 17, 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

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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 preliminary results at TAC & TAB as part of 2018 TPP Update

- Conducted review of points and barriers & updated analysis from earlier study (April 2019)

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Technical Advisory Work Group

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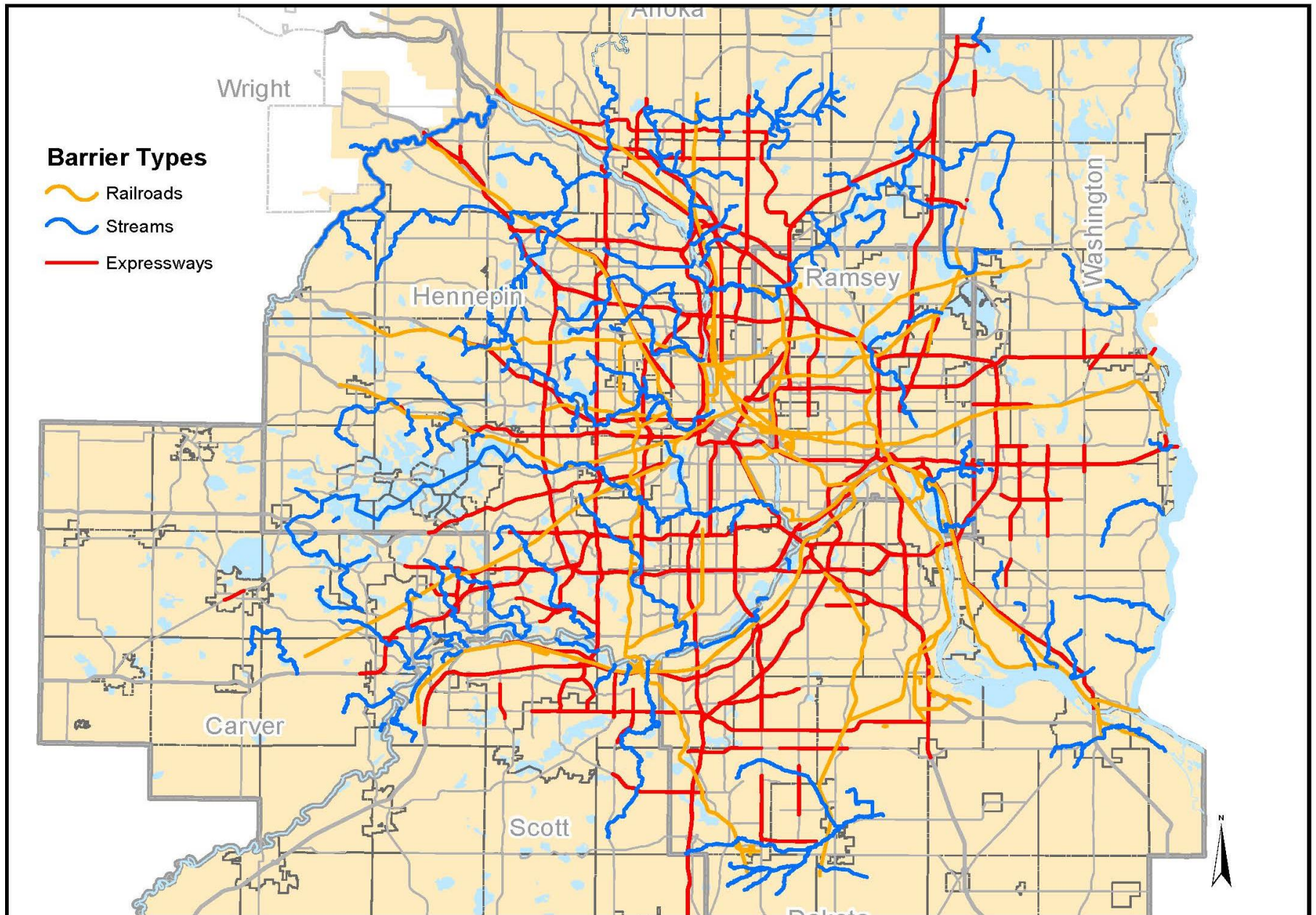- Active Living agency (1)

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Study Background

Study Work Scope

- Considered major physical regional barriers to bicycle travel including:

- Freeways and expressways

- Railroad corridors

- Secondary rivers & streams

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Regional Bicycle Barriers

Barrier Types
- Railroads
- Streams
- Expressways

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

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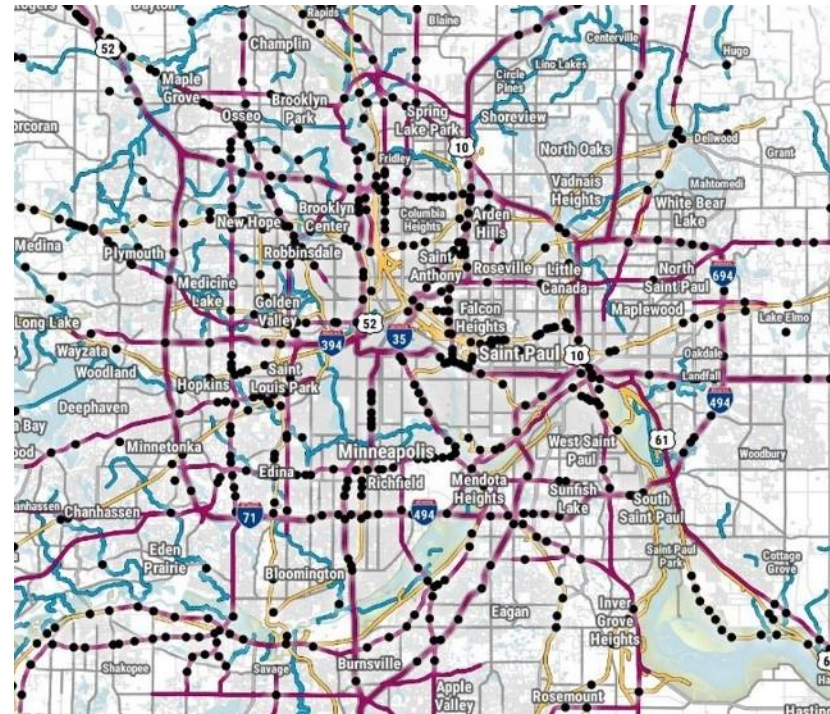
Analysis Factors & Measures

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

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Reg. Bike Barrier Crossing

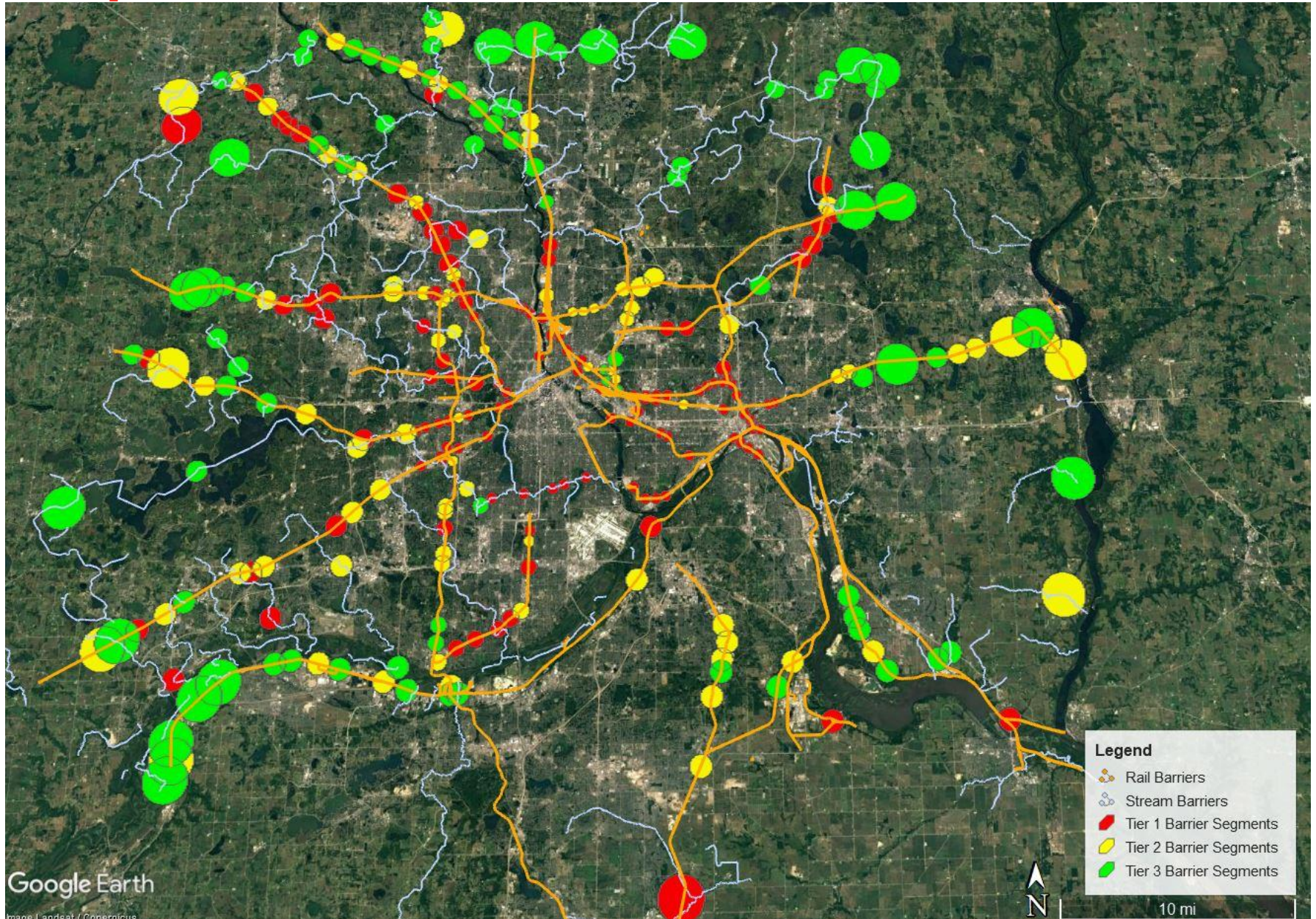| Thrive Community Designation Group	Preferred Maximum Distance	Example Cities
Urban Center	0.50 mile	Minneapolis, St Paul, Richfield, Hopkins, South St Paul
Urban	0.75 mile	Golden Valley, Roseville, Maplewood, Crystal, Edina
Suburban, Suburban Edge, Emerging Suburban Edge	1 mile	Blaine, Woodbury, Maple Grove, Eagan, Lakeville
Diversified Rural, Rural Residential, Agricultural	2 miles	Grant, Afton, Ham Lake, Empire Twp., Columbus

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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
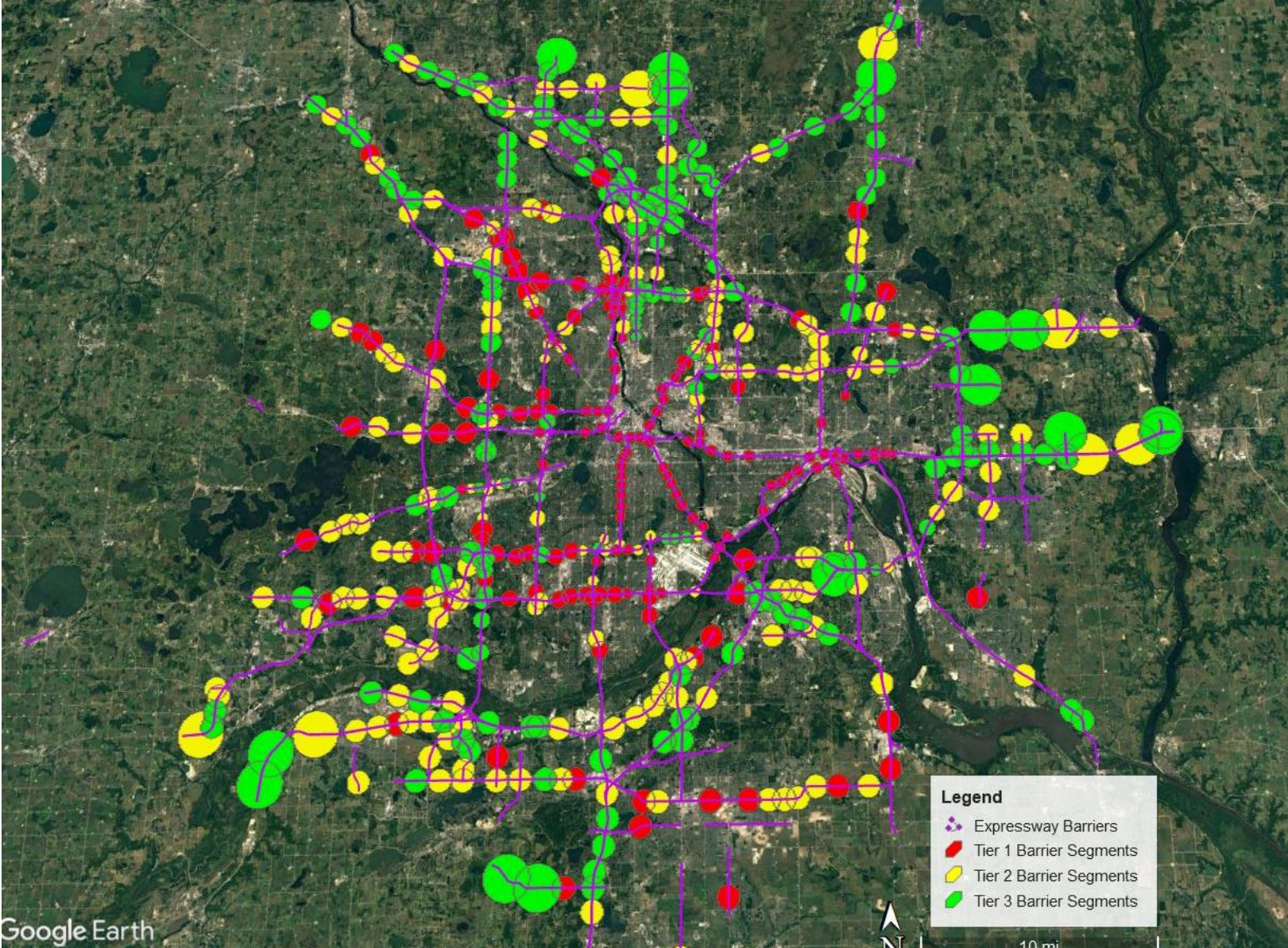
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RBBS Update Summary

- Initial Study analyzed ~ 1200 crossing pts
- Final analysis left 758 ranked crossing pts

- Of the 758 final crossing area points:
  - 189 are on RBTN or Regional Trails
  - 212 points are planned local bikeway barrier crossings
  - Remaining points are "spacing" or "opportunity" barrier crossings

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Regional Bicycle Barrier Crossing Improvement Areas: Railroads & Streams

Legend
- Rail Barriers
- Stream Barriers
- Tier 1 Barrier Segments
- Tier 2 Barrier Segments
- Tier 3 Barrier Segments

Regional Bicycle Barrier Crossing Improvement Areas: Freeways/Expressways

Legend
- Expressway Barriers
- Tier 1 Barrier Segments
- Tier 2 Barrier Segments
- Tier 3 Barrier Segments

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Google Earth

Relevance to Local Plans and Council Processes

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

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