

The background of the slide is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered on the slide.

WATERSHED MANAGEMENT PLAN AMENDMENT

LOWER MINNESOTA RIVER WATERSHED DISTRICT

OCTOBER 25, 2017

OVERVIEW

1. Watershed District Purpose
2. Legal Requirement/Authority/Process
3. Plan Amendment Framework
4. Standards Development Approach
5. Proposed Standards
6. Plan Amendment Process Summary

WATERSHED DISTRICT PURPOSE

- TO CONSERVE THE NATURAL RESOURCES OF THE STATE BY LAND USE PLANNING, FLOOD CONTROL, AND OTHER CONSERVATION PROJECTS BY USING SOUND SCIENTIFIC PRINCIPLES FOR THE PROTECTION OF THE PUBLIC HEALTH AND WELFARE AND THE PROVIDENT USE OF THE NATURAL RESOURCES. (103D.201)
- TO CONTROL OR ALLEVIATE SOIL EROSION AND SILTATION OF WATERCOURSES OR WATER BASINS. (103D.201)
- TO PROTECT OR ENHANCE THE WATER QUALITY IN WATERCOURSES OR WATER BASINS. (103D.201)

LEGAL REQUIREMENT

- A WATERSHED MANAGEMENT PLAN IS REQUIRED FOR WATERSHEDS COMPRISING ALL MINOR WATERSHED UNITS WHOLLY OR PARTLY WITHIN THE METROPOLITAN AREA. (103B.231)
- THE MANAGERS MUST ADOPT A WATERSHED MANAGEMENT PLAN FOR ANY OR ALL OF THE PURPOSES FOR WHICH A WATERSHED DISTRICT MAY BE ESTABLISHED. (103D.401)
- THE MANAGERS AND THE BOARD MUST REVISE THE WATERSHED MANAGEMENT PLAN FOR THE WATERSHED DISTRICT AT LEAST ONCE EVERY TEN YEARS AFTER THE ORIGINAL WATERSHED MANAGEMENT PLAN IS APPROVED. (103D.405)

LEGAL AUTHORITY

- AFTER THE WATERSHED PLAN IS APPROVED AND ADOPTED, OR AMENDED, THE LOCAL GOVERNMENT UNITS HAVING LAND USE PLANNING AND REGULATORY RESPONSIBILITY FOR TERRITORY WITHIN THE WATERSHED SHALL PREPARE A LOCAL WATER MANAGEMENT PLAN, CAPITAL IMPROVEMENT PROGRAM, AND OFFICIAL CONTROLS AS NECESSARY TO BRING LOCAL WATER MANAGEMENT INTO CONFORMANCE WITH THE WATERSHED PLAN. (103B.235)
- THE PLAN SHALL INCLUDE STANDARDS AND SCHEDULES FOR AMENDING THE COMPREHENSIVE PLANS AND OFFICIAL CONTROLS OF LOCAL GOVERNMENT UNITS IN THE WATERSHED TO BRING ABOUT CONFORMANCE WITH THE WATERSHED PLAN. (103B.231)

LEGAL PROCESS

- UPON COMPLETION OF THE PLAN BUT BEFORE FINAL ADOPTION BY THE ORGANIZATION, THE ORGANIZATION MUST SUBMIT THE DRAFT PLAN FOR A 60-DAY REVIEW AND COMMENT PERIOD TO ALL COUNTIES, THE METROPOLITAN COUNCIL, THE STATE REVIEW AGENCIES, THE BOARD OF WATER AND SOIL RESOURCES, SOIL AND WATER CONSERVATION DISTRICTS, TOWNS, AND STATUTORY AND HOME RULE CHARTER CITIES HAVING TERRITORY WITHIN THE WATERSHED. (103B.231)
- THE WATERSHED MANAGEMENT ORGANIZATION MUST RESPOND IN WRITING TO ANY CONCERNS EXPRESSED BY THE REVIEW AGENCIES AT LEAST TEN DAYS BEFORE THE PUBLIC HEARING. (103B.231)
- THE WATERSHED MANAGEMENT ORGANIZATION MUST HOLD A PUBLIC HEARING ON THE DRAFT PLAN NO SOONER THAN 14 DAYS AFTER THE 60-DAY REVIEW PERIOD OF THE DRAFT PLAN. (103B.231)

LEGAL PROCESS

- AFTER COMPLETION OF LOCAL REVIEW, THE DRAFT PLAN, ANY AMENDMENTS THERETO, ALL WRITTEN COMMENTS RECEIVED ON THE DRAFT PLAN, A RECORD OF THE PUBLIC HEARING, AND A SUMMARY OF CHANGES INCORPORATED AS A RESULT OF THE REVIEW PROCESS SHALL BE SUBMITTED TO THE METROPOLITAN COUNCIL, THE STATE REVIEW AGENCIES, AND THE BOARD OF WATER AND SOIL RESOURCES FOR FINAL REVIEW. (103B.231)
- THE BOARD SHALL REVIEW THE PLAN WITHIN 90 DAYS OF SUBMITTAL. (103B.231)

PLAN AMENDMENT PROCESS SUMMARY

2016

District Held Informational Meetings with Municipalities to Assess Standards Implementation

February & March 2017

Hosted 4 Technical Advisory Commission Meetings (Federal and State Agencies, Cities, Counties, and NGO)

April - July 2017

- Amended the Plan
- 60-Day Review Draft Plan Released

Municipalities asked the District to modify its Plan to match their Comprehensive Plan/ Local Water Management planning schedule

Fall 2016

Met with the cities of Bloomington, Carver, Chaska, Eden Prairie, Savage, and Shakopee, Carver WMO and Scott County/ WMO.

March & April 2017

STANDARDS DEVELOPMENT APPROACH

RESOURCE MANAGEMENT STRATEGY

PRESERVE

MAINTAIN IN ITS EXISTING STATE

PROTECT

A FORMAL MEASURE INTENDED TO
PRESERVE THE FUNCTION AND VALUE OF
A RESOURCE

RESTORE

TO RETURN TO A FORMER CONDITION OR
THE INTENDED CONDITION

EXISTING MUNICIPAL AND TOWNSHIP STANDARDS REVIEW

Municipalities and Townships

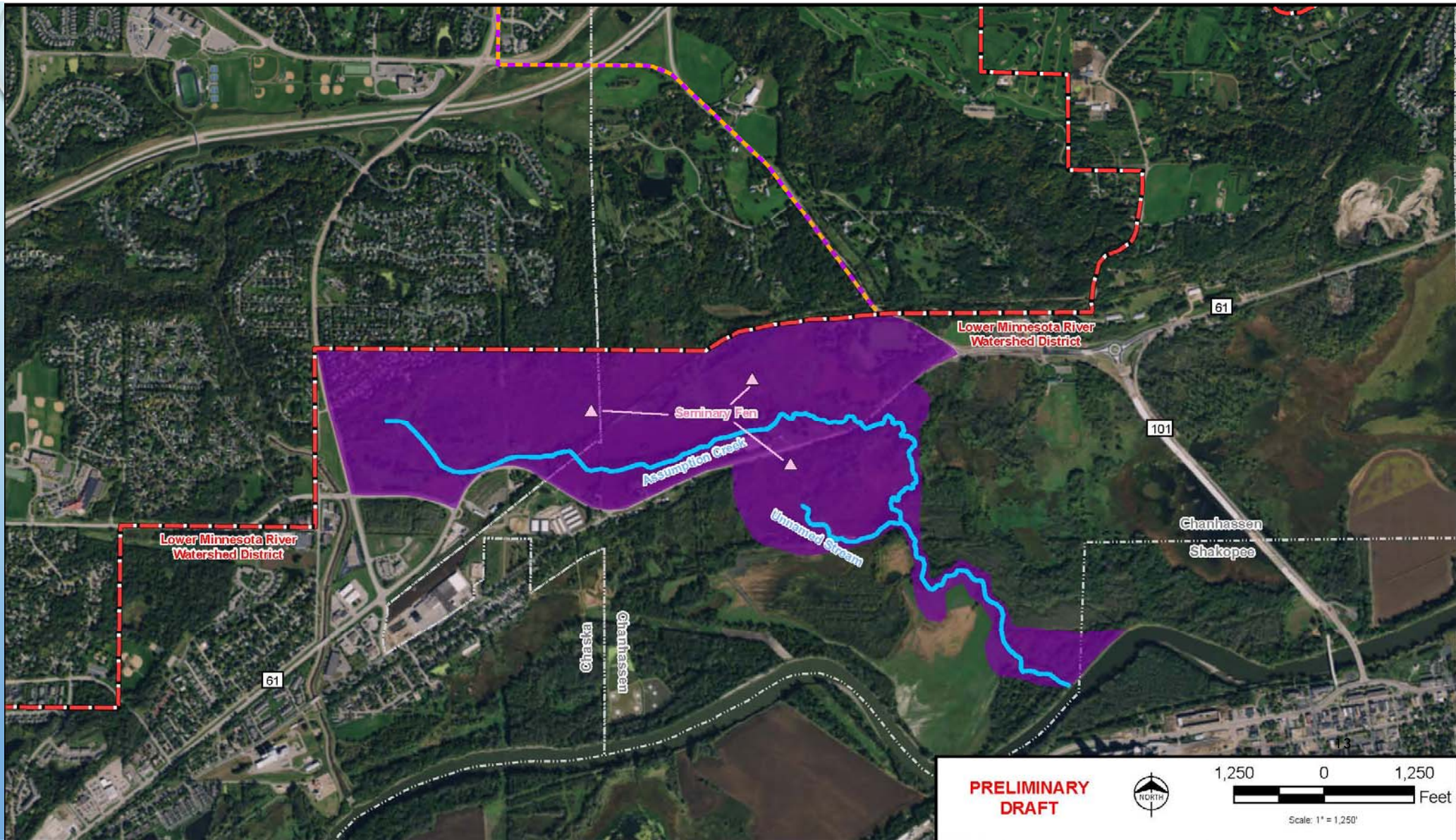
- Bloomington
- Burnsville
- Carver
- Chanhassen
- Chaska
- Eagan
- Eden Prairie
- Jackson Township
- Lilydale
- Louisville Township
- Mendota
- Mendota Heights
- Savage
- Shakopee

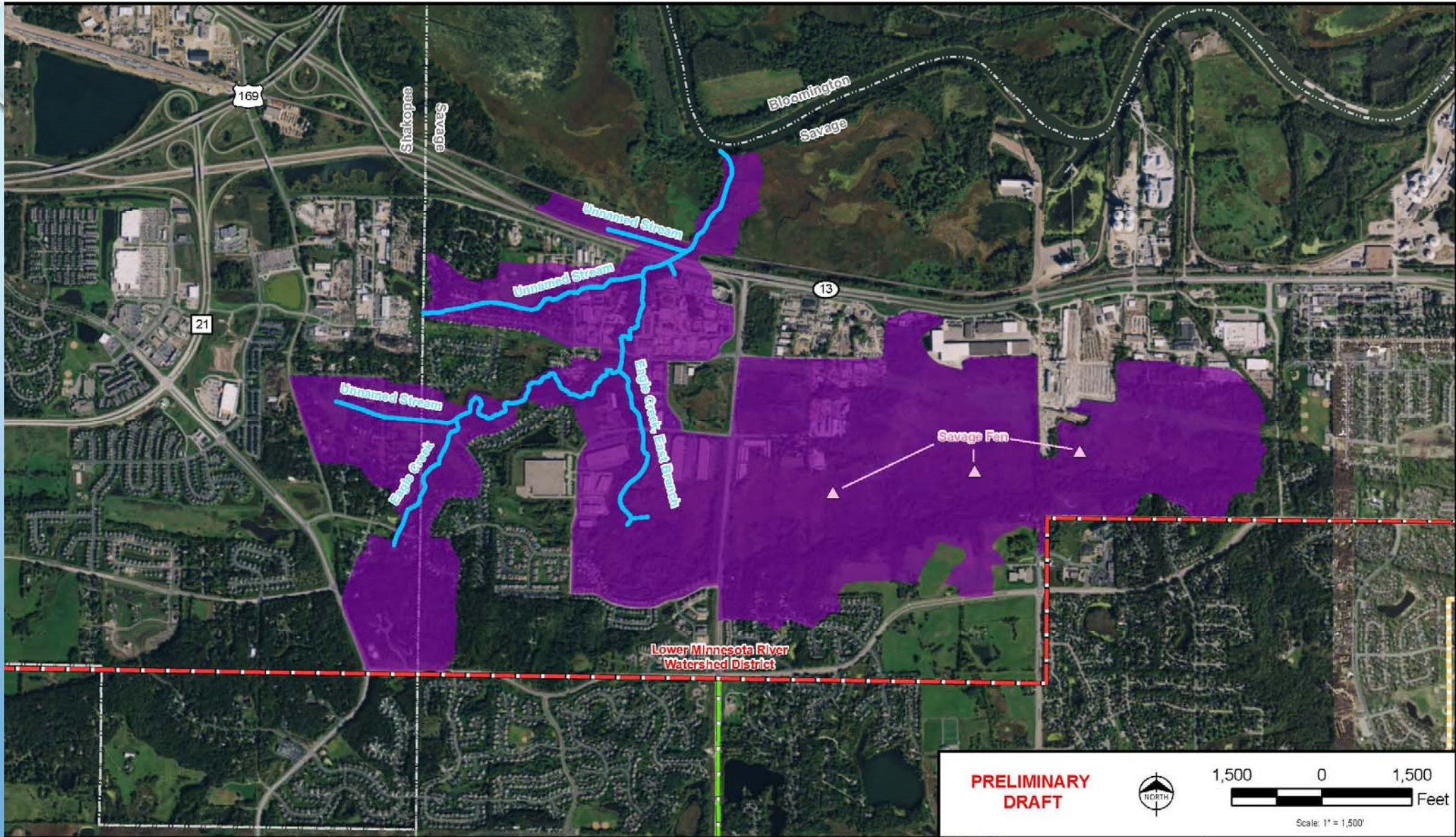
Standards Reviewed

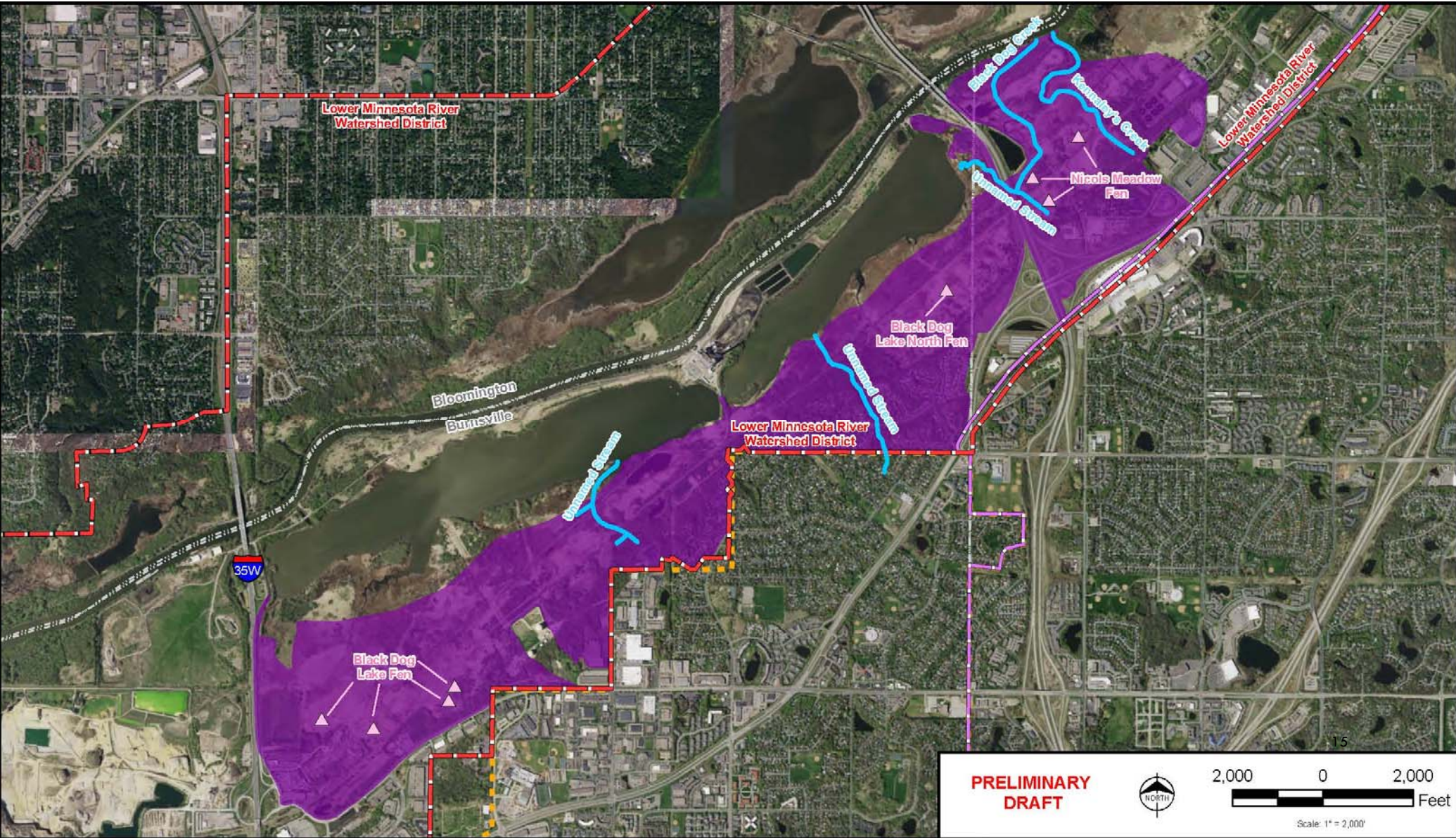
- Construction Erosion & Sediment Control Standard
- Stormwater Standard (Rate and Volume)
- Floodplain Standard
- Shoreline and Streambank Standard
- Bluff and Steep Slopes Standard

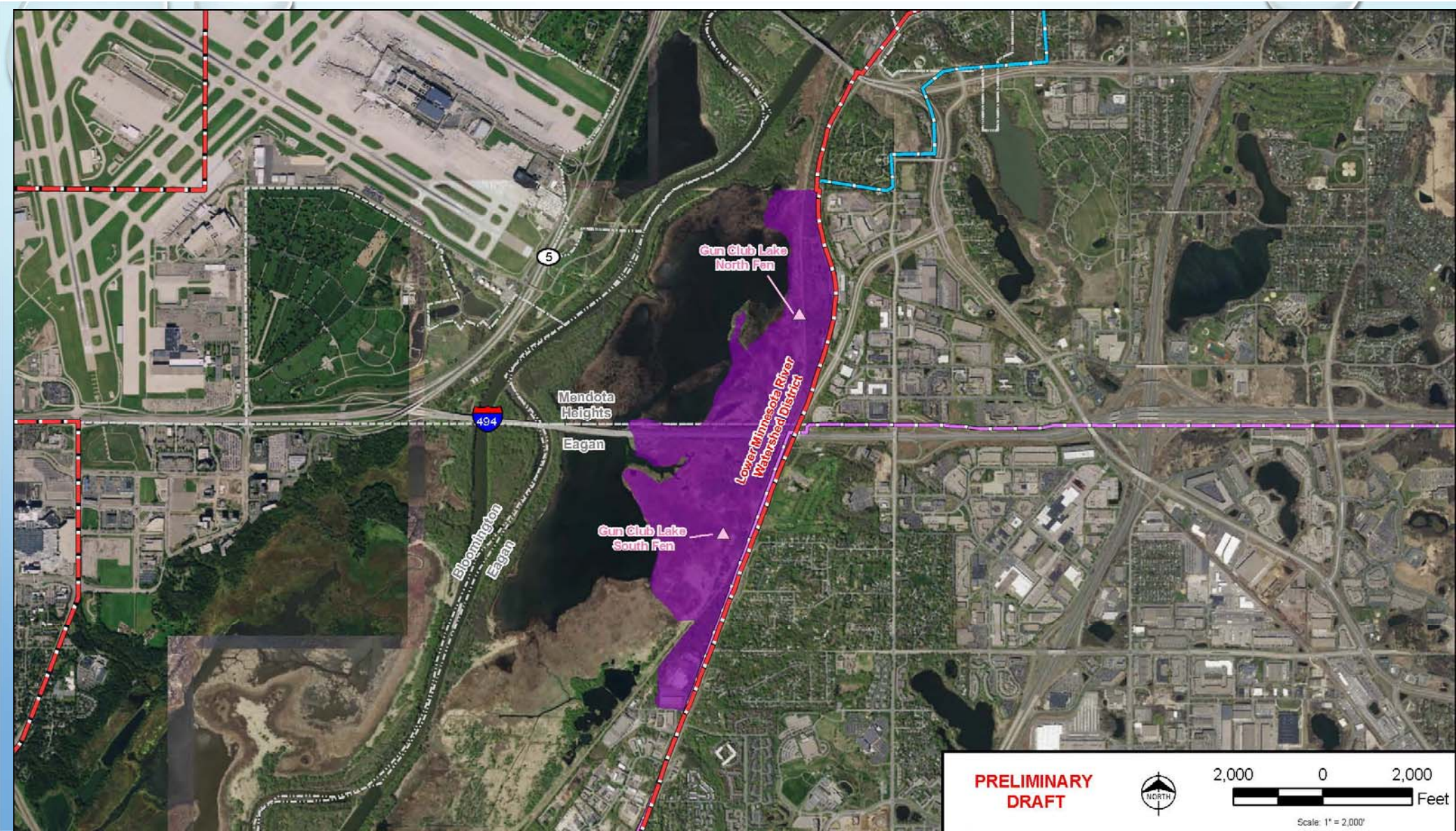


HIGH VALUE RESOURCE AREAS FENS, TROUT LAKES AND TROUT STREAMS









PROPOSED STANDARD

- Proposed Construction Erosion and Sediment Control Standards
 - High Value Resource Areas
 - Triggers
 - 5,000sf or more
 - Grading, excavating, filling or storing of more than 50 cubic yards of soil or earth material.
 - Standard
 - Erosion and Sediment Control Plan
 - SWPPP for site disturbing 1 acre or more
 - Maintenance and Inspection

PROPOSED STANDARD

Proposed Stormwater Management Standard

High Resource Value Areas

Triggers

- Development, redevelopment, and drainage alterations (including roads) creating new impervious areas greater than 10,000 square feet (sq. ft.).

Standard

- Rate - meet predevelopment conditions for the 2, 10 and 100-year 24 hour events using Atlas-14
- Volume
 - 1.1 inches of runoff retained for new and re development projects
 - transportation projects shall capture and retain the larger of the following: 0.55 inches from new or reconstructed surface or 1.1 inches of runoff from the net increase in impervious area
- Water Quality
 - New Development shall have 60% annual removal of TP and 80% removal for TSS.
 - Redevelopment shall achieve a net decrease (on an average annual basis) of TP and TSS.

PROPOSED STANDARD

Proposed Water Appropriation Standard

High Resource Value Areas

- Trigger
 - Dewatering activities and Groundwater appropriations (less than and greater than 10,000 gallons per day and 1 million gallons per year)
- Standard
 - Demonstrate no net change in groundwater levels
 - Discharge Management Plan

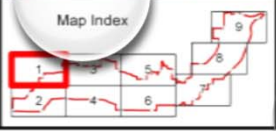
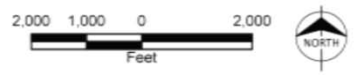
BLUFF AREAS

PROPOSED STANDARD

The bluff definition would change from 30% to 18%, would not be tied to shoreland and the structural setback would change from 30 feet to 40 feet.

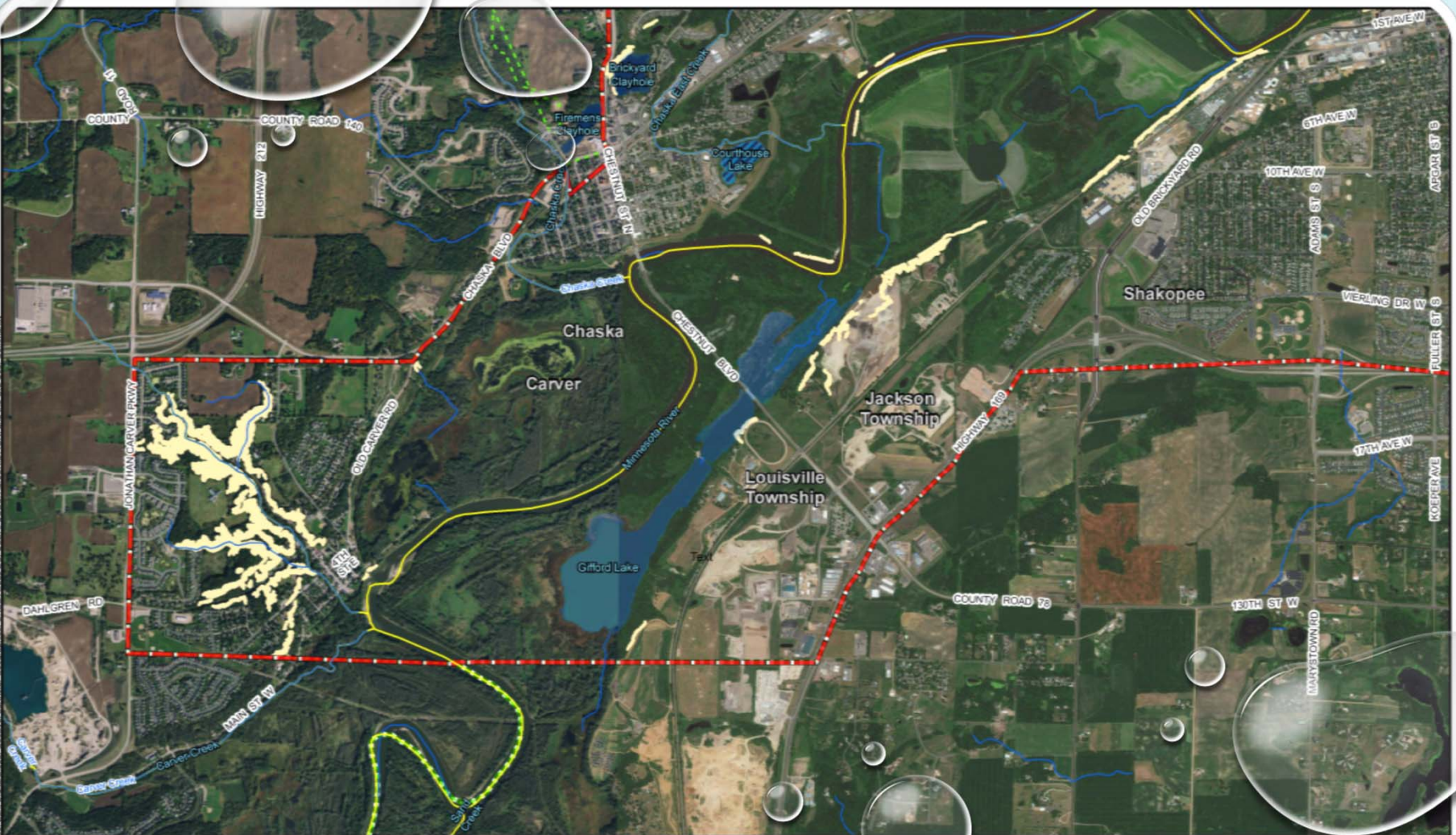


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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Carver County | Stream/River | PW Water |
| Riley-Purgatory-Bluff Creek | Impaired River or Stream | Trout Stream | |
| Scott | Impaired Lake | Calcarius Fens Point | |
| Lower MN River | | Municipal Boundary | |

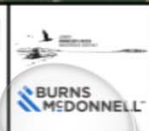
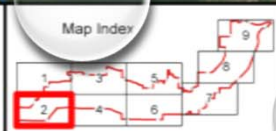


Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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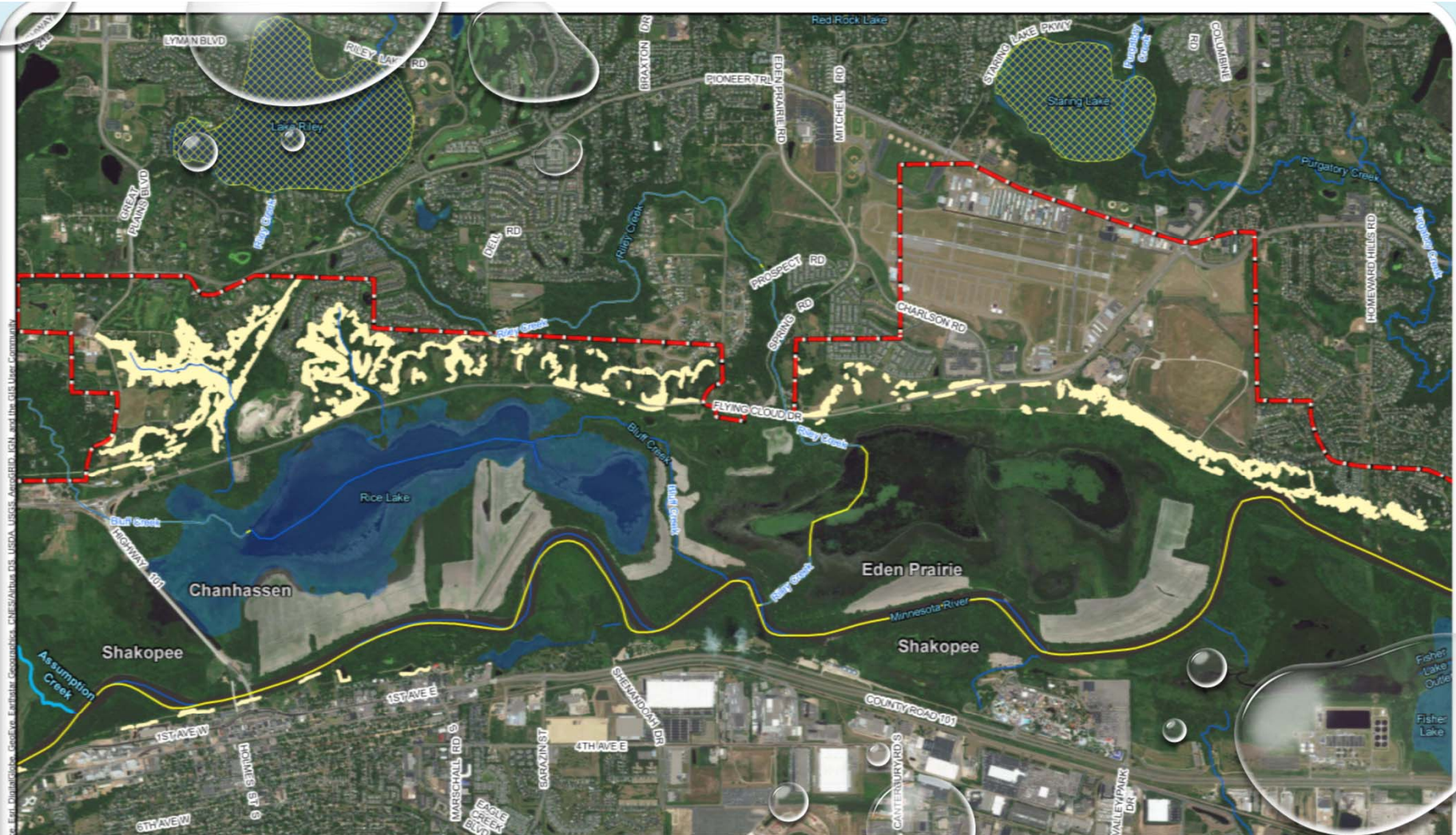
*FSRI, MNDNR, Minnesota Geospatial Information Office, Burns & McDonnell Engineering Company, Inc.



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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SHA - Fens |
| 30% Slope | Carver County | Stream/River | PMF Voids |
| | Scott | Impaired River or Stream | Trout Pond/Lake |
| | Lower MN River | Impaired Lake | Occasional Fen Point |
| | | | Municipal Boundary |

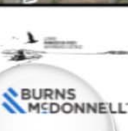
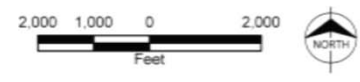


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 Draft Bluff Overlay District Map 23
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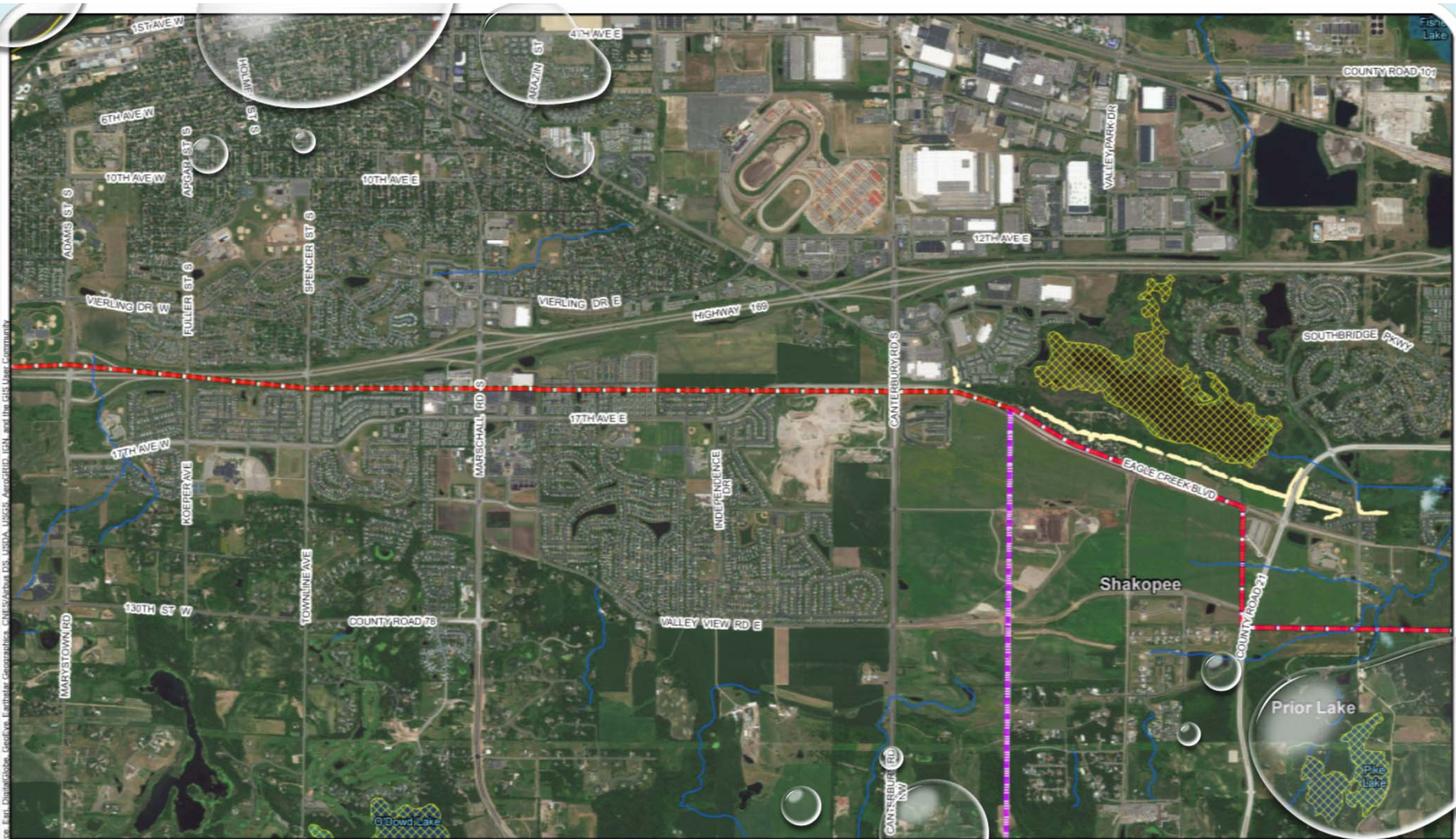


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Riley-Purgatory-Bluff Creek | Stream/River | PVI Water |
| Scott | Lower MN River | Impaired River or Stream | Trout Stream |
| | | Impaired Lake | Calcasieu Fen Point |
| | | Municipal Boundary | |



Lower Minnesota River Watershed District
 Draft Bluff Overlay; District Map 24
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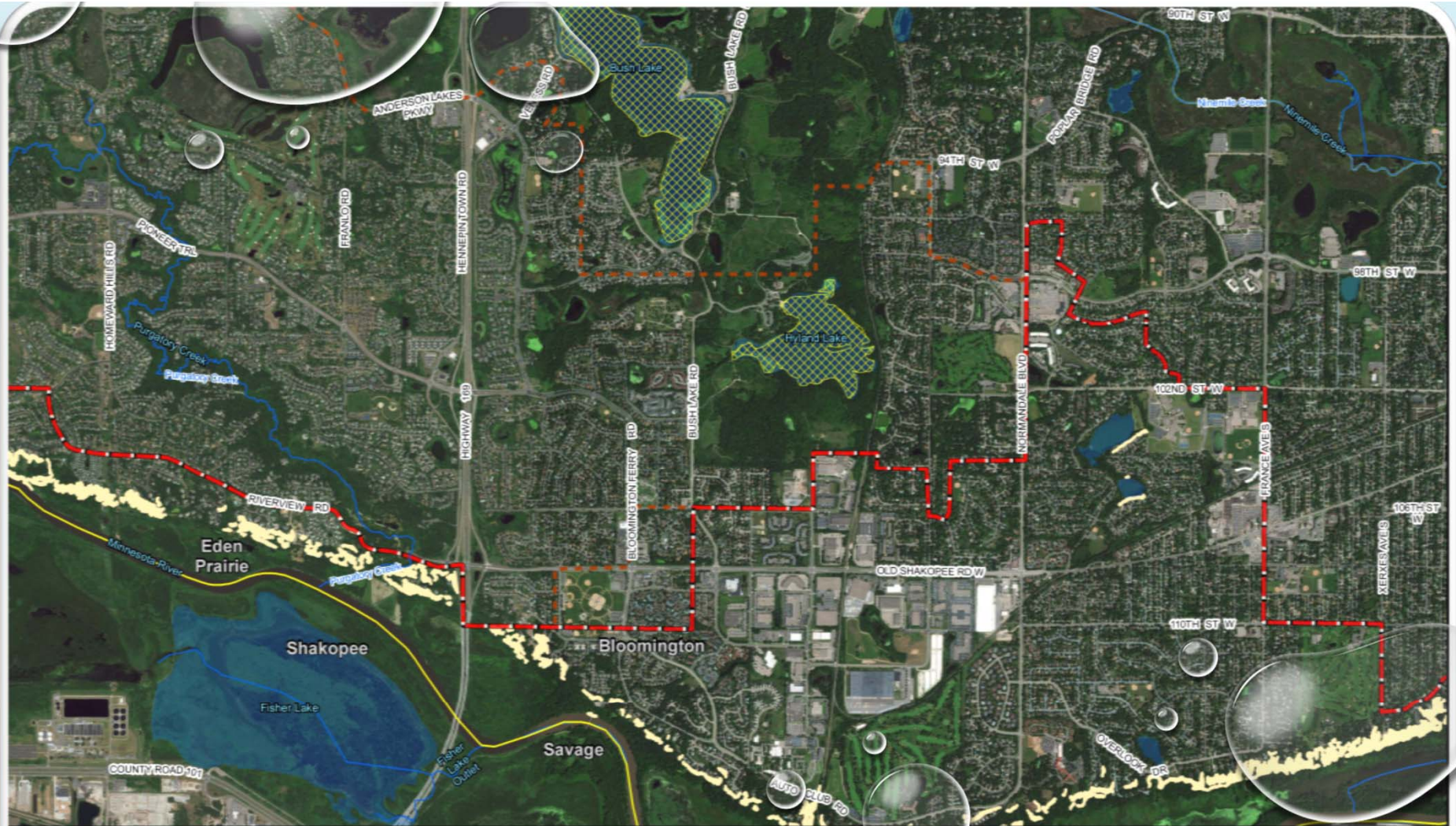


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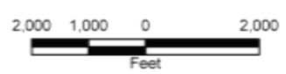
Bluff Overlay District	Watershed District Boundary	MNDNR Publicly Available Data	SNA - Fens
30% Slope	Prior Lake-Spring Lake	Stream/River	PW Wells
	Scott	Impaired River or Stream	Calcareous Fm Point
	Lower MN River	Impaired Lake	Municipal Boundary



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map **25**
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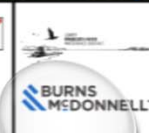
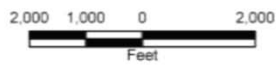
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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Riley-Purgatory-Bluff Creek | Stream/River | Pine Water |
| Scott | Lower MN River | Impaired River or Stream | Calcareous Sand Point |
| | | Impaired Lake | Municipal Boundary |



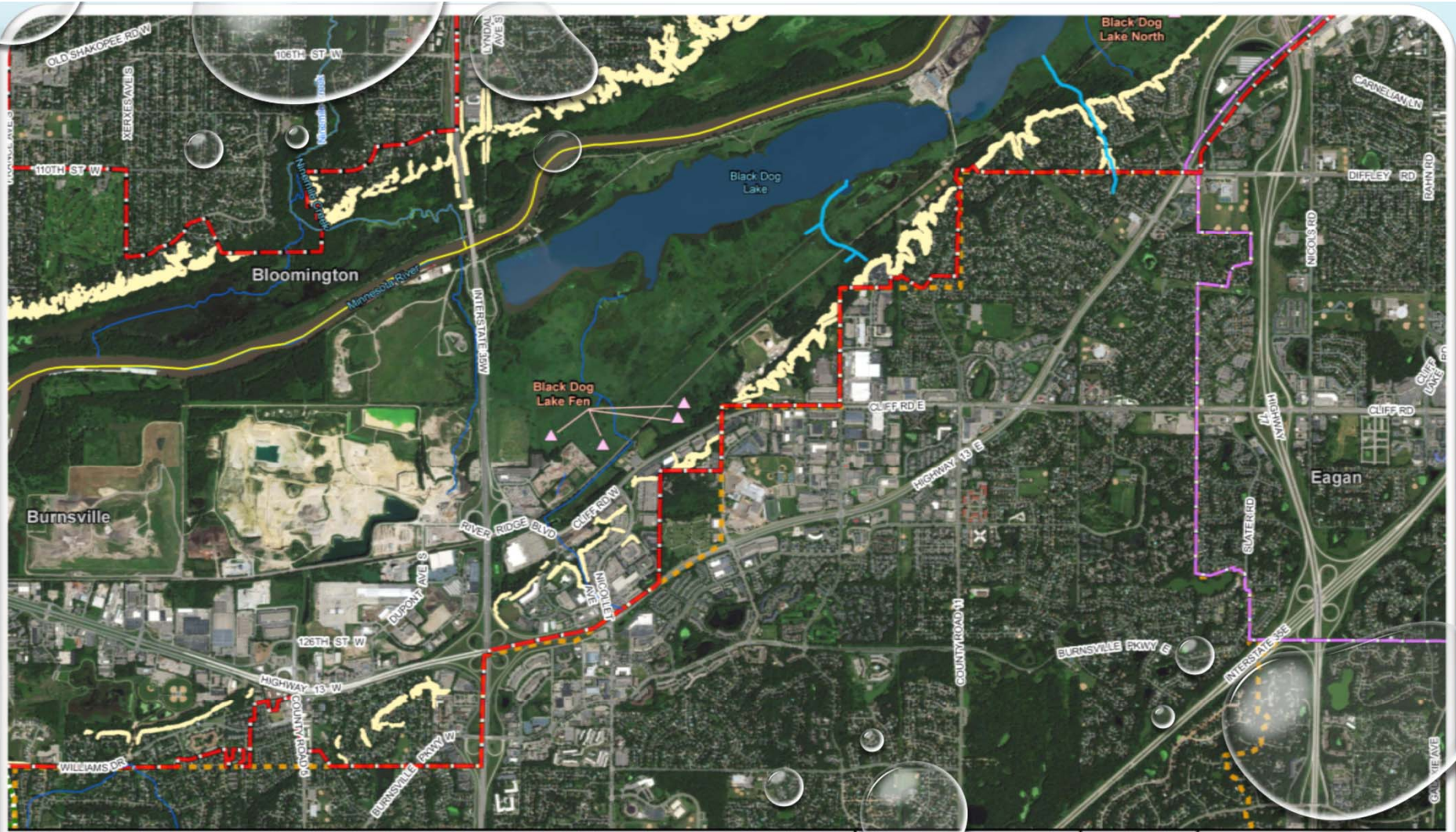
Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map 26
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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Black Dog | Stream/River | PWA Water |
| LMRWD Watershed Plan Amendment Slides | Scott | Tributary Stream | Chickadee Fen Point |
| Lower MN River | Impaired Lake | Municipal Boundary | |



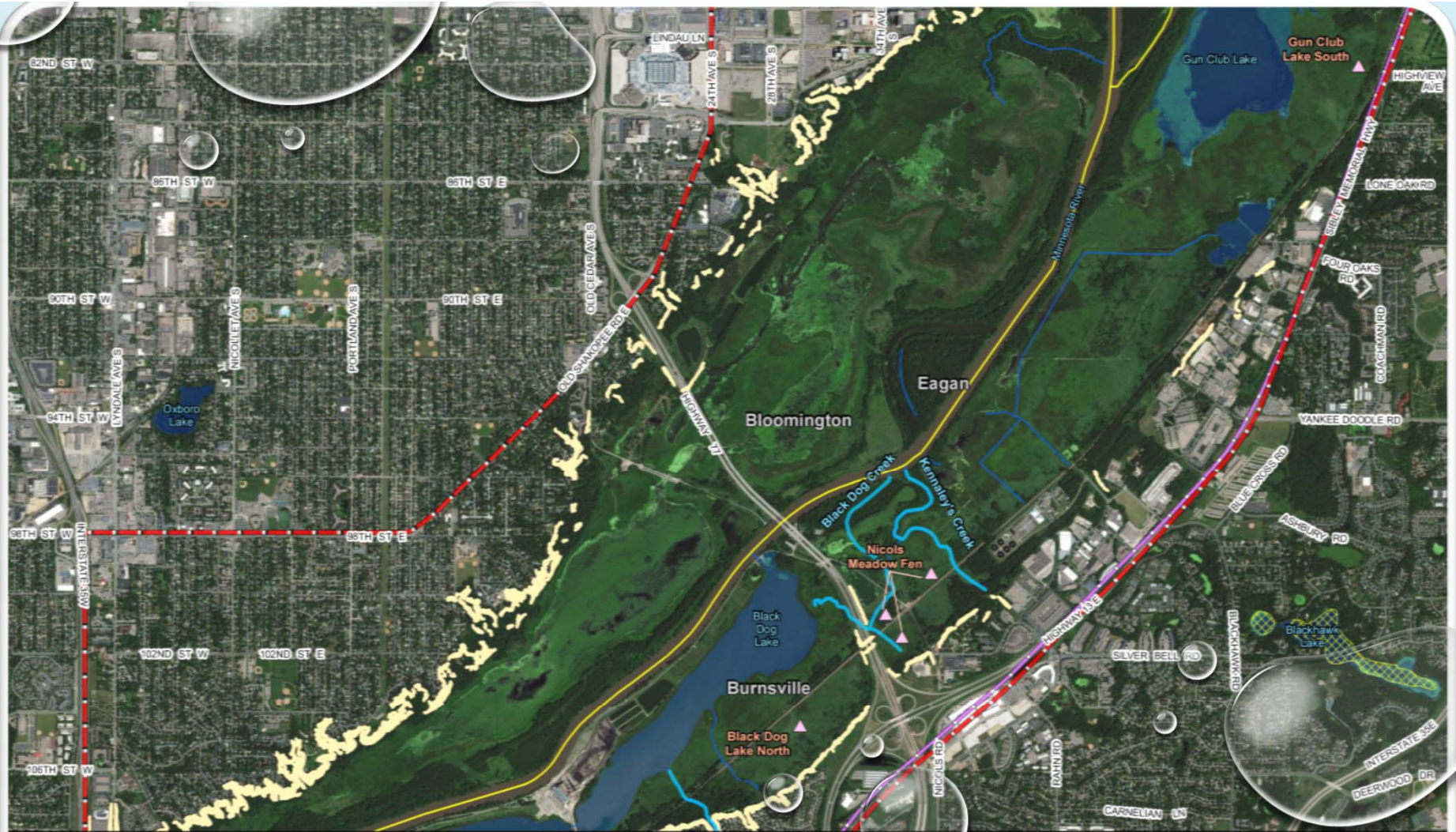
Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map 27
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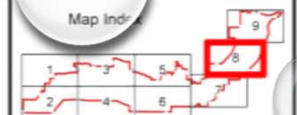
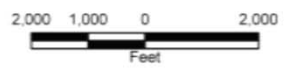
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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Black Dog | Stream/River | PW Water |
| | Eagan-Inver Grove | Impaired River or Stream | Trib Stream |
| | Scott | Impaired Lake | Catawba Fen Port |
| | Lower MN River | | Municipal Boundary |



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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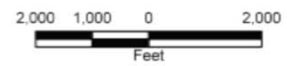
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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Eagan-Inver Grove | Stream/River | PW Water |
| | Scott | Impaired River or Stream | Troul Stream |
| | Lower MN River | Impaired Lake | Calcareous Fen Point |
| | | | Municipal Boundary |



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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|-------------------------------|------------------------------------|--------------------------------------|----------------------|
| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Eagan-Inver Grove | Stream/River | RWI Water |
| | Lower MS River | Impaired River or Stream | Calcareous Fan Point |
| | Scott | Impaired Lake | Minnesota Boundary |
| | Lower MN River | | |



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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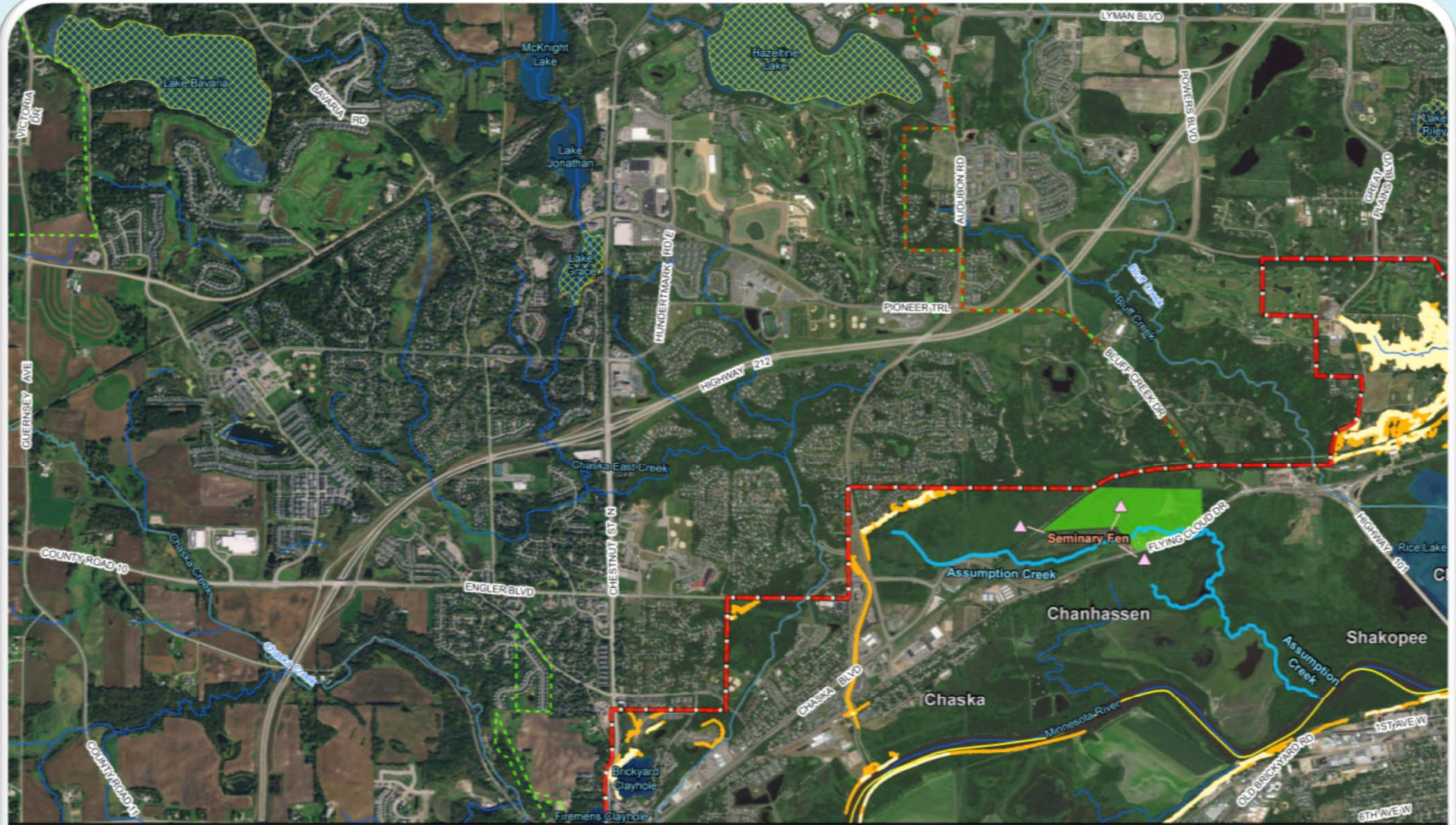
EXISTING BLUFF STANDARD PROPERTY SUMMARY

PRELIMINARY

Bloomington	Burnsville	Carver	Chanhassen	Chaska	Eden Prairie
511	286	121	54	33	145

Eagan	Fort Snelling	Lilydale	Mendota	Mendota Heights	Met. Airport Co.
37	5	1	15	16	1

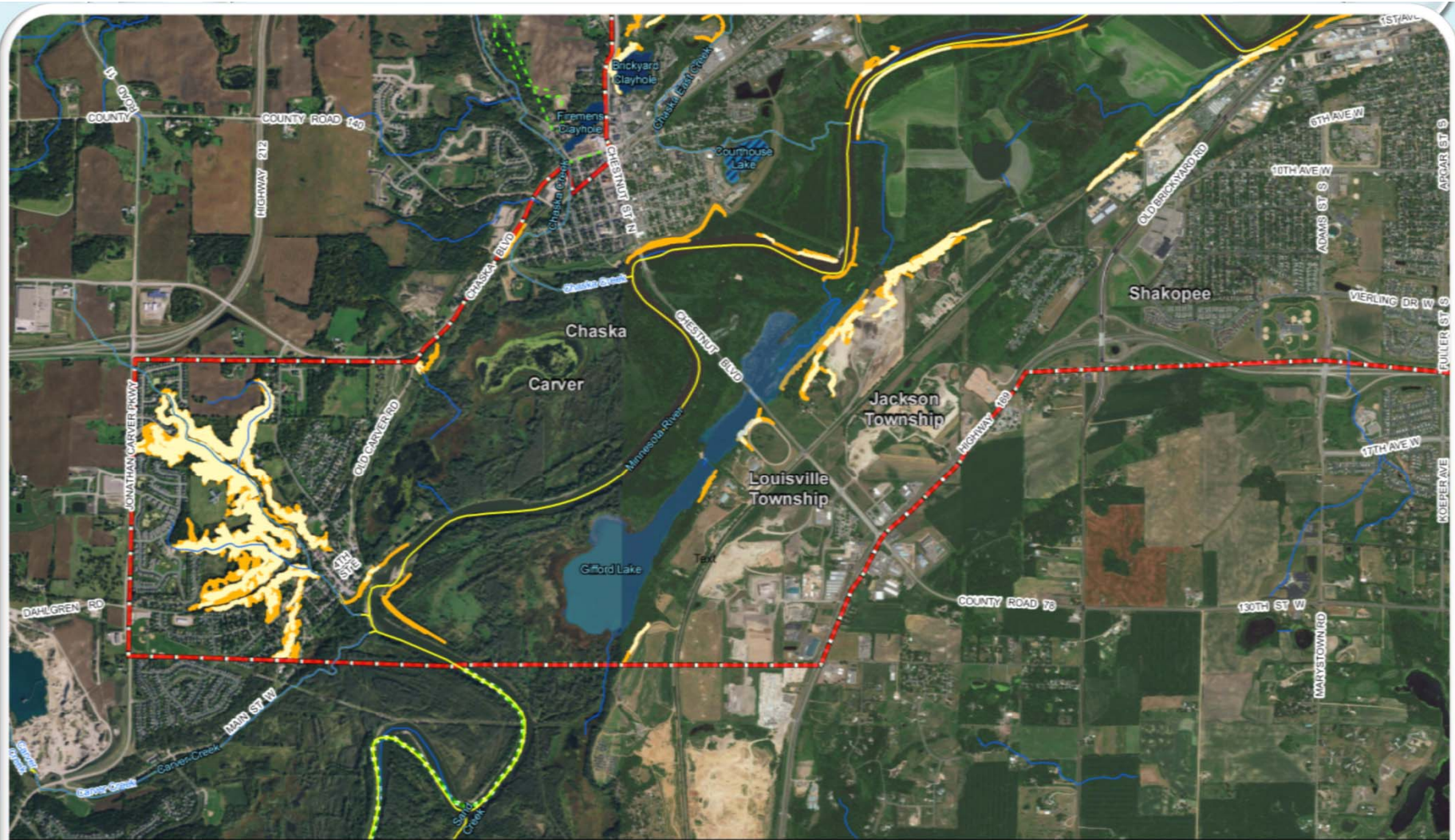
Savage	Shakopee
109	88



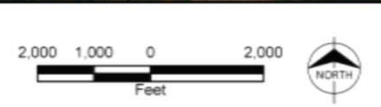
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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Carver County | Stream/River | PWI Water |
| Additional with 15% Slope | Riley-Purgatory-Bluff Creek | Impaired River or Stream | Trout Stream |
| | Scott | Impaired Lake | Calcareous Fen Point |
| | Lower MN River | | Municipal Boundary |



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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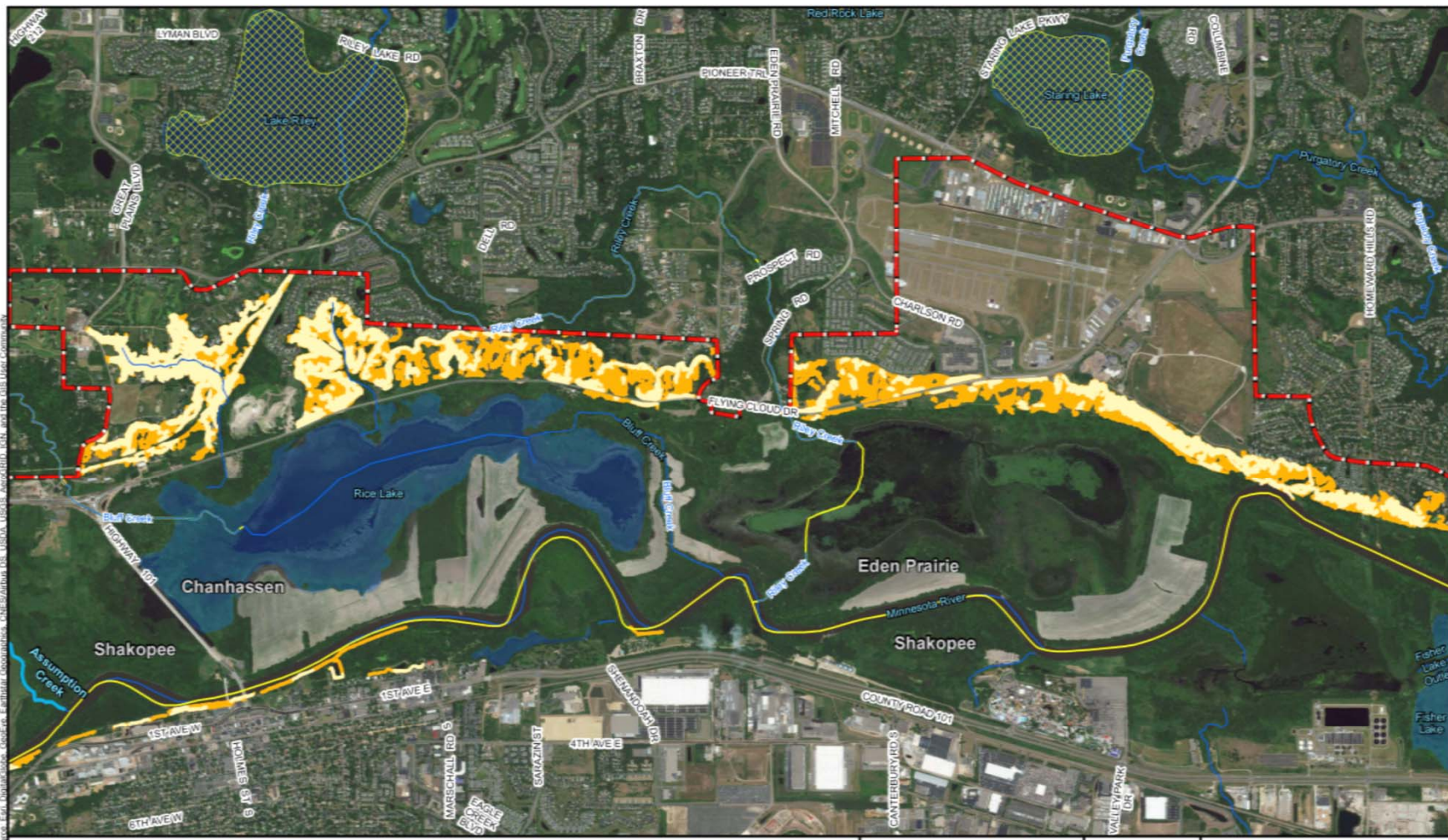


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| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data |
| 30% Slope | Carver County | Stream/River |
| Additional with 18% Slope | Scott | Impaired River or Stream |
| | Lower MN River | Impaired Lake |
| | | Calcareous Fen Point |
| | | Municipal Boundary |



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map 33
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|-------------------------------|------------------------------------|--------------------------------------|----------------------|
| Bluff Overlay District | Watershed District Boundary | MNDNR Publicly Available Data | SNA - Fens |
| 30% Slope | Riley-Purgatory-Bluff Creek | Stream/River | PW1 Water |
| Additional with 18% Slope | Scott | Impaired River or Stream | Trout Stream |
| | Lower MN River | Impaired Lake | Calcareous Fen Point |
| | | | Municipal Boundary |

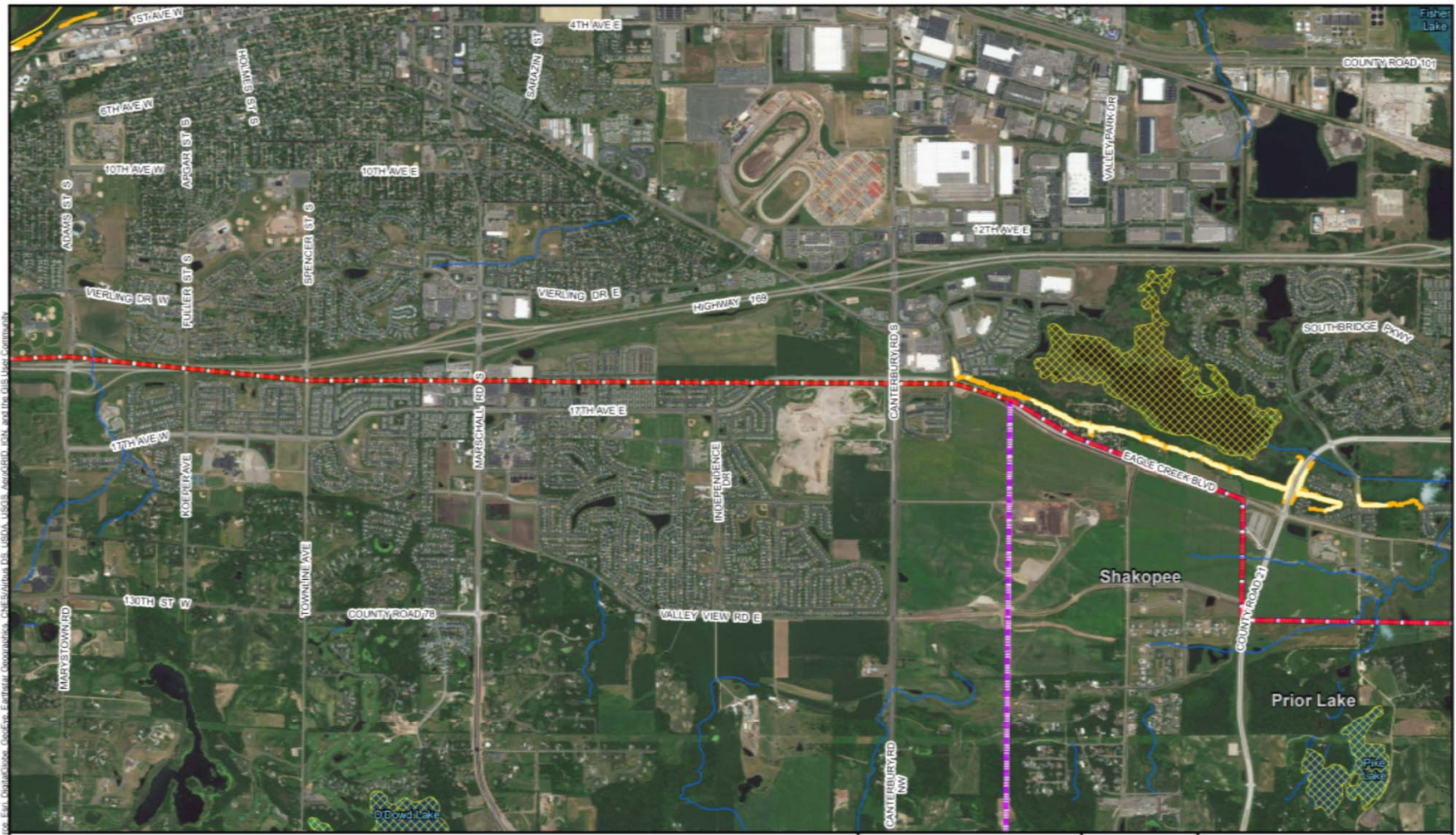


Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
 Figure L1
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Source: ESRI, MNDNR, Minnesota Geospatial Information Office, Burns & McDonnell Engineering Company, Inc.

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 Source: ESRI, MNDNR, Minnesota Geospatial Information Office, Burns & McDonnell Engineering Company, Inc.



Bluff Overlay District	Watershed District Boundary	MNDNR Publicly Available Data	SNA - Fens
30% Slope	Prior Lake-Spring Lake	Stream/River	PWI Water
Additional with 15% Slope	Scott	Impaired River or Stream	Calcareous Fen Point
	Lower MN River	Impaired Lake	Municipal Boundary

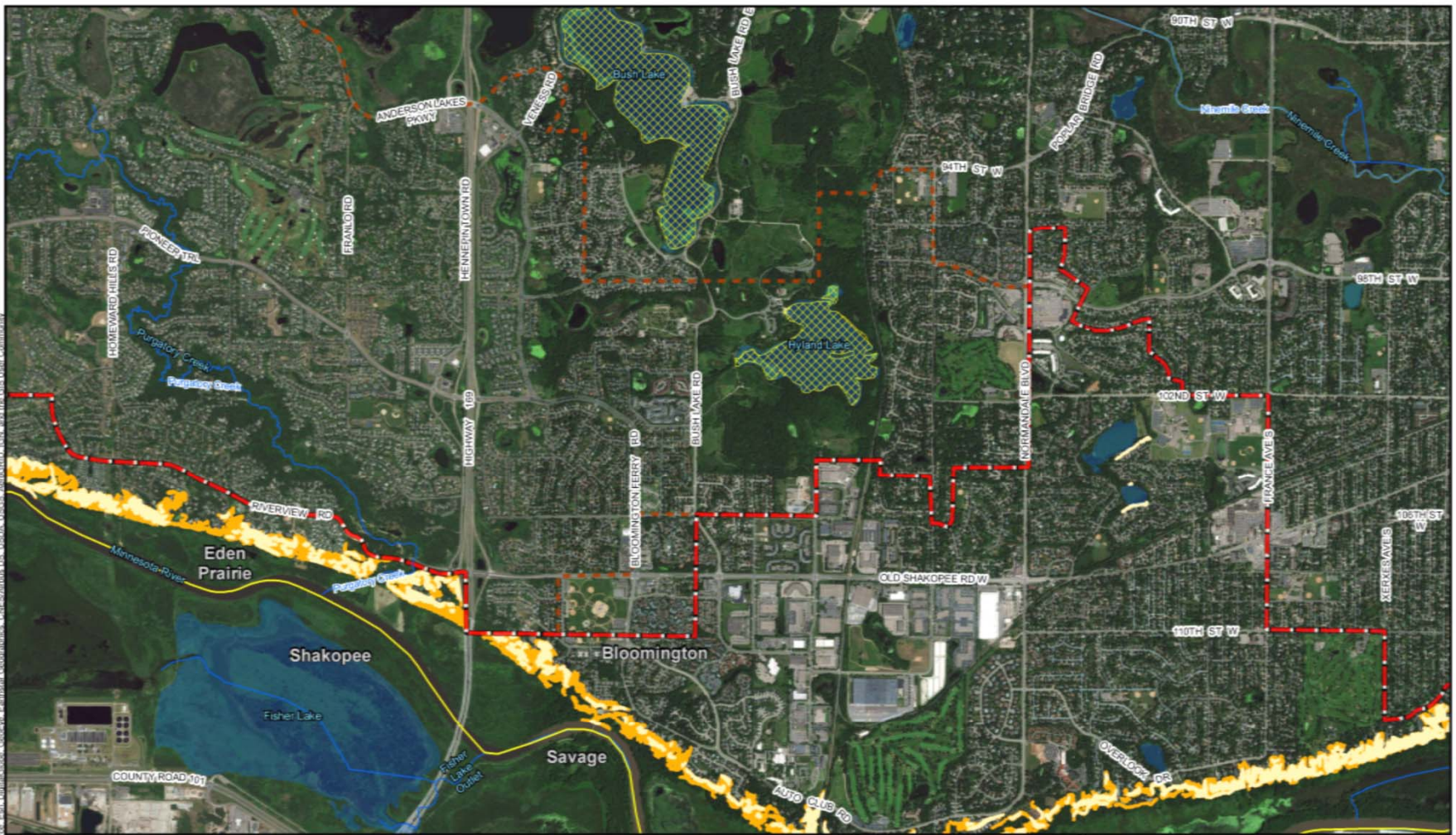
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Feet

NORTH



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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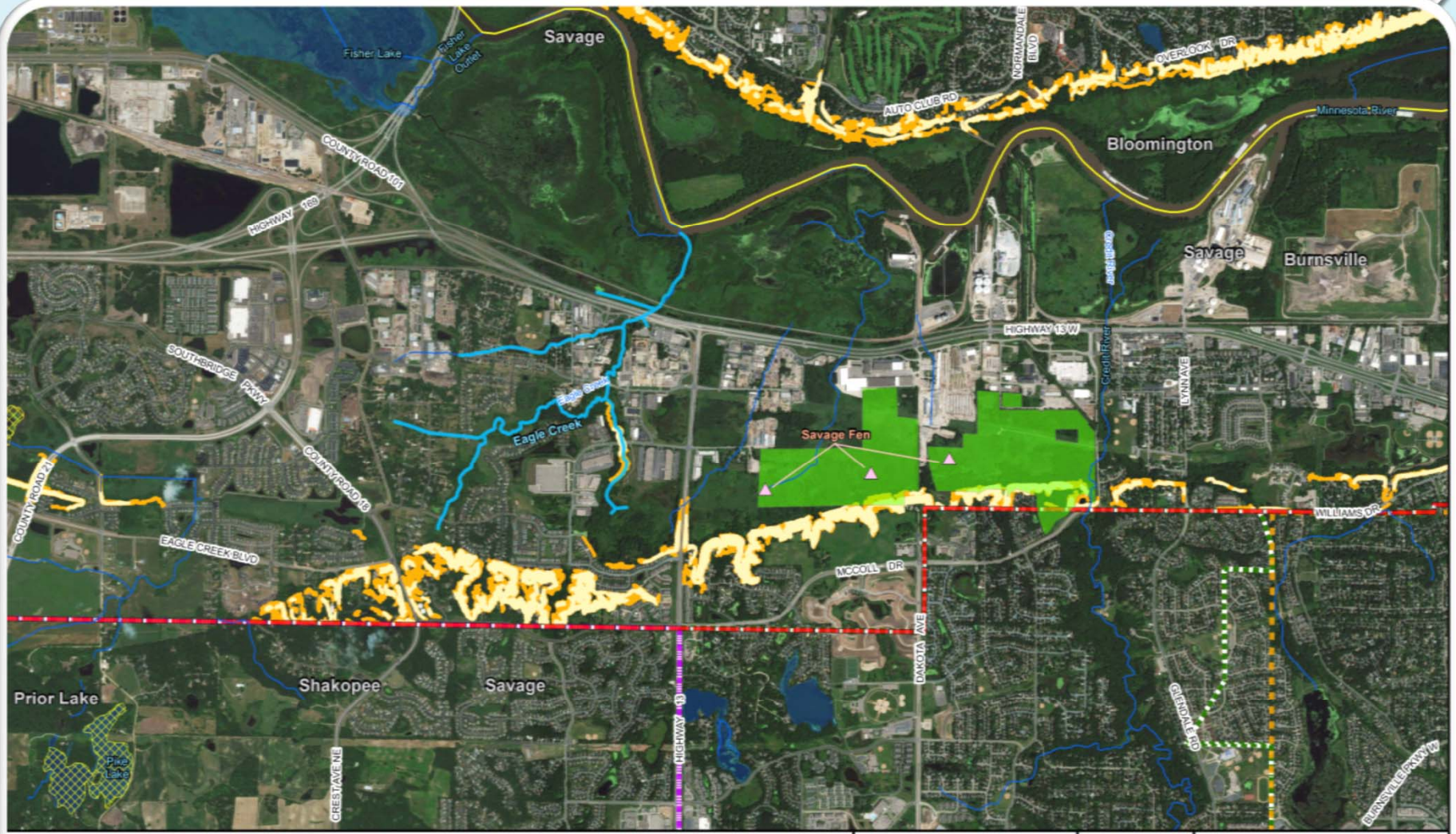
Bluff Overlay District	Watershed District Boundary	MNDNR Publicly Available Data	SNA - Fens
32% Slope	Riley-Purgatory-Bluff Creek	Stream/River	PVA Water
Additional with 18% Slope	Scott	Impaired River or Stream	Calcareous Fen Point
	Lower MN River	Impaired Lake	Municipal Boundary

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 Feet

NORTH



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
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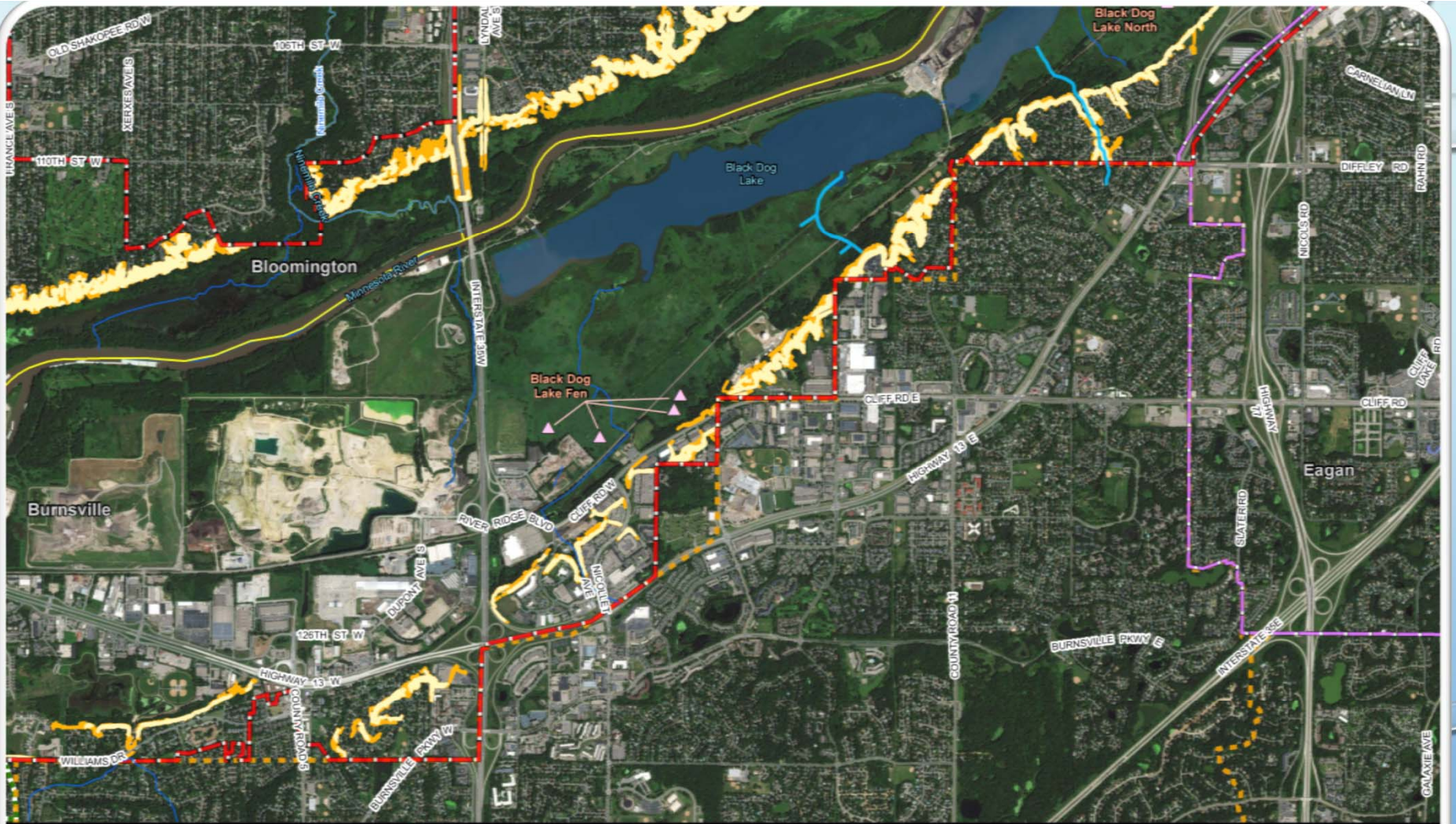


- Bluff Overlay District**
 - 30% Slope
 - Additional with 18% Slope
- Watershed District Boundary**
 - Black Dog
 - Prior Lake-Spring Lake
 - Scott
 - Lower MN River

- MNDNR Publicly Available Data**
 - Stream/River
 - Impaired River or Stream
 - Impaired Lake
- SNA - Fens**
 - PVA Water
 - Trout Stream
 - Calcareous Fen Point
 - Municipal Boundary



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map
 Figure L1
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Bluff Overlay District

- 30% Slope
- Additional with 18% Slope

Watershed District Boundary

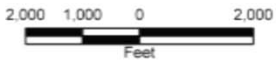
- Black Dog
- Eagan-Inver Grove
- Scott
- Lower MN River

MNDNR Publicly Available Data

- Stream/River
- Impaired River or Stream
- Impaired Lake

SNA - Fens

- PVI Water
- Trout Stream
- ▲ Calcareous Fen Point
- Municipal Boundary



Lower Minnesota River Watershed District
 Draft Bluff Overlay District Map 38
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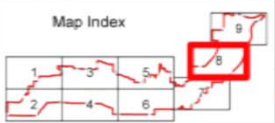


Bluff Overlay District
 30% Slope
 Additional with 18% Slope

Watershed District Boundary
 Egan-Inver Grove
 Scott
 Lower MN River

MNDNR Publicly Available Data
 Stream/River
 Impaired River or Stream
 Impaired Lake

SNA - Fens
 PM Water
 Trout Stream
 Calcareous Fen Point
 Municipal Boundary



Lower Minnesota River Watershed District
 Draft Bluff Overlay District M39
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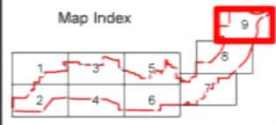


Bluff Overlay District
 30% Slope
 Additional with 18% Slope

Watershed District Boundary
 Egan-Inver Grove
 Lower MS River
 Scott
 Lower MN River

MNDNR Publicly Available Data
 Stream/River
 Impaired River or Stream
 Impaired Lake

SNA - Fens
 PVA Water
 Calcareous Fen Port
 Municipal Boundary



Lower Minnesota River Watershed District
 Draft Bluff Overlay District M40
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 October 2017

EXISTING & PROPOSED BLUFF STANDARD PROPERTY SUMMARY

PRELIMINARY

	Bloomington	Burnsville	Carver	Chanhassen	Chaska	Eden Prairie
Existing	511	286	121	54	33	145
Proposed	676	363	159	65	84	229
Net Change	165	77	38	11	51	84

EXISTING & PROPOSED BLUFF STANDARD PROPERTY SUMMARY

PRELIMINARY

	Eagan	Fort Snelling	Lilydale	Mendota	Mendota Heights	Met. Airport Co.
Existing	37	5	1	15	16	1
Proposed	49	5	1	16	16	1
Net Change	12	0	0	1	0	0

	Savage	Shakopee
Existing	109	88
Proposed	239	199
Net Change	130	111

PLAN AMENDMENT PROCESS SUMMARY

August 2017

60-Day Review Draft Plan Comment Period Extended

October 2017

- Released Draft Response to comments
- Met with City of Bloomington and Scott County/WMO
- Public Hearing

- Met with the cities of Eden Prairie and Bloomington
- Comment period closed on Sept. 20th

August & September 2017

- Finalize Draft SONAR
- Address comments
- Update the Plan
- Released 90-day Draft Final Plan

October 2017 – April 2018