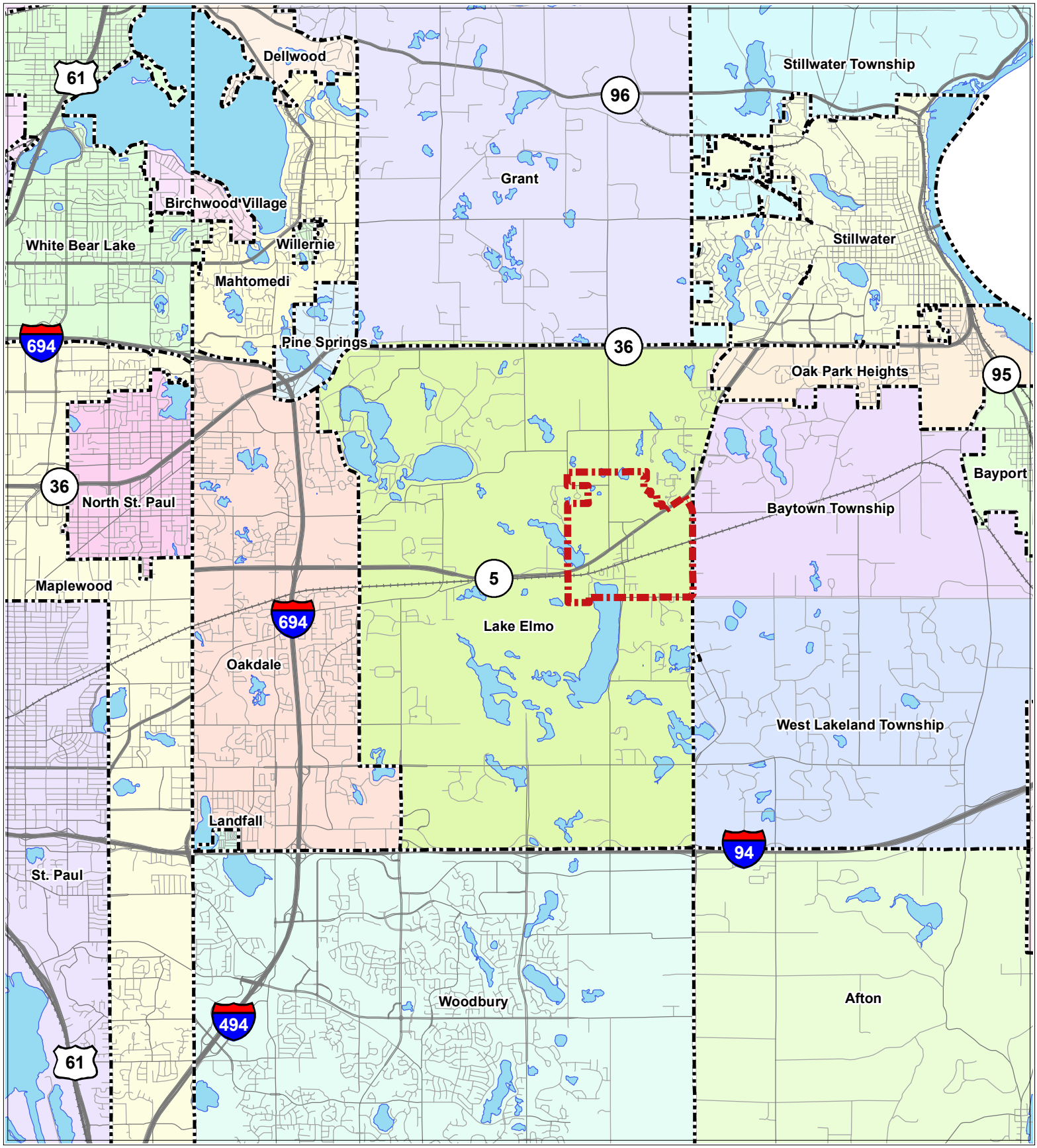


Figure 5-1
Project Location
Lake Elmo AUAR

N

4,000 0 4,000 Feet

AUAR Boundary
Municipal Boundary
Open Water

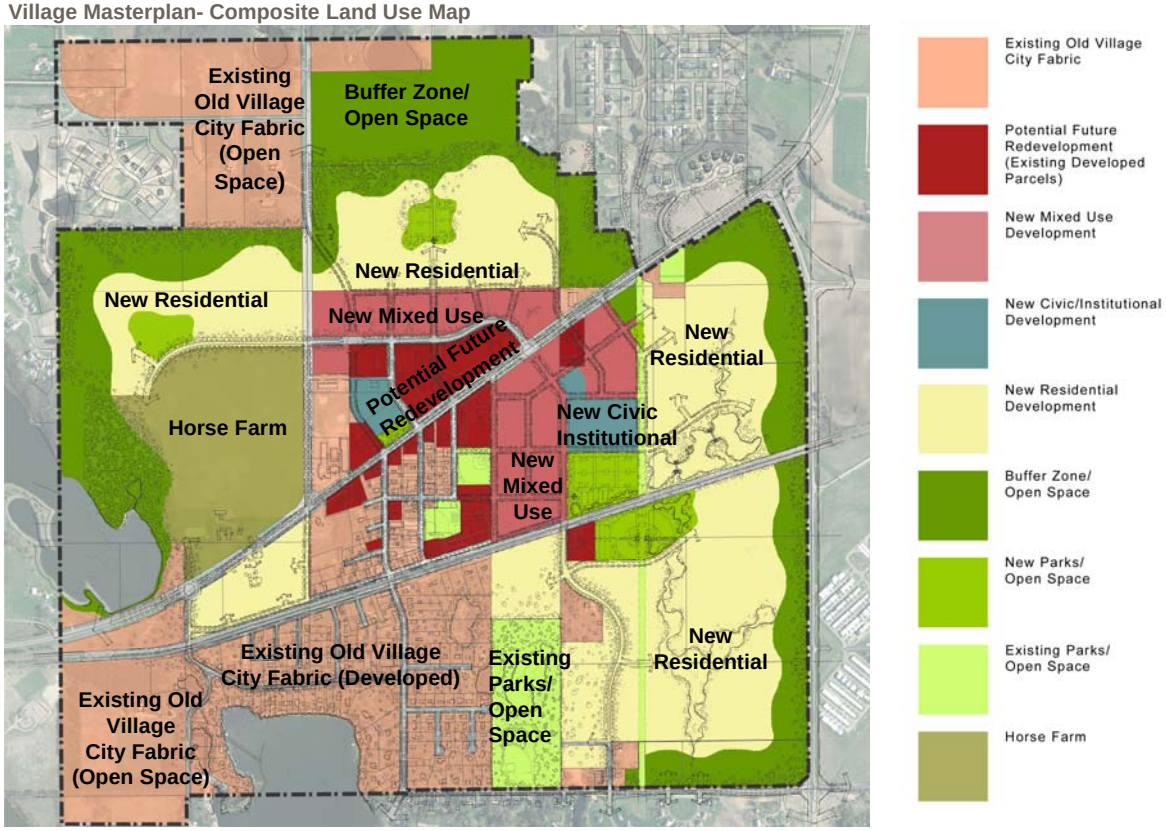
Bonestroo

July 9, 2007
I:/38/3806001/gis/avprojects/location.mxd

Figure 6-1

Village Masterplan AUAR Development Scenarios (A, B, & C)

Village Masterplan- Composite Land Use Map

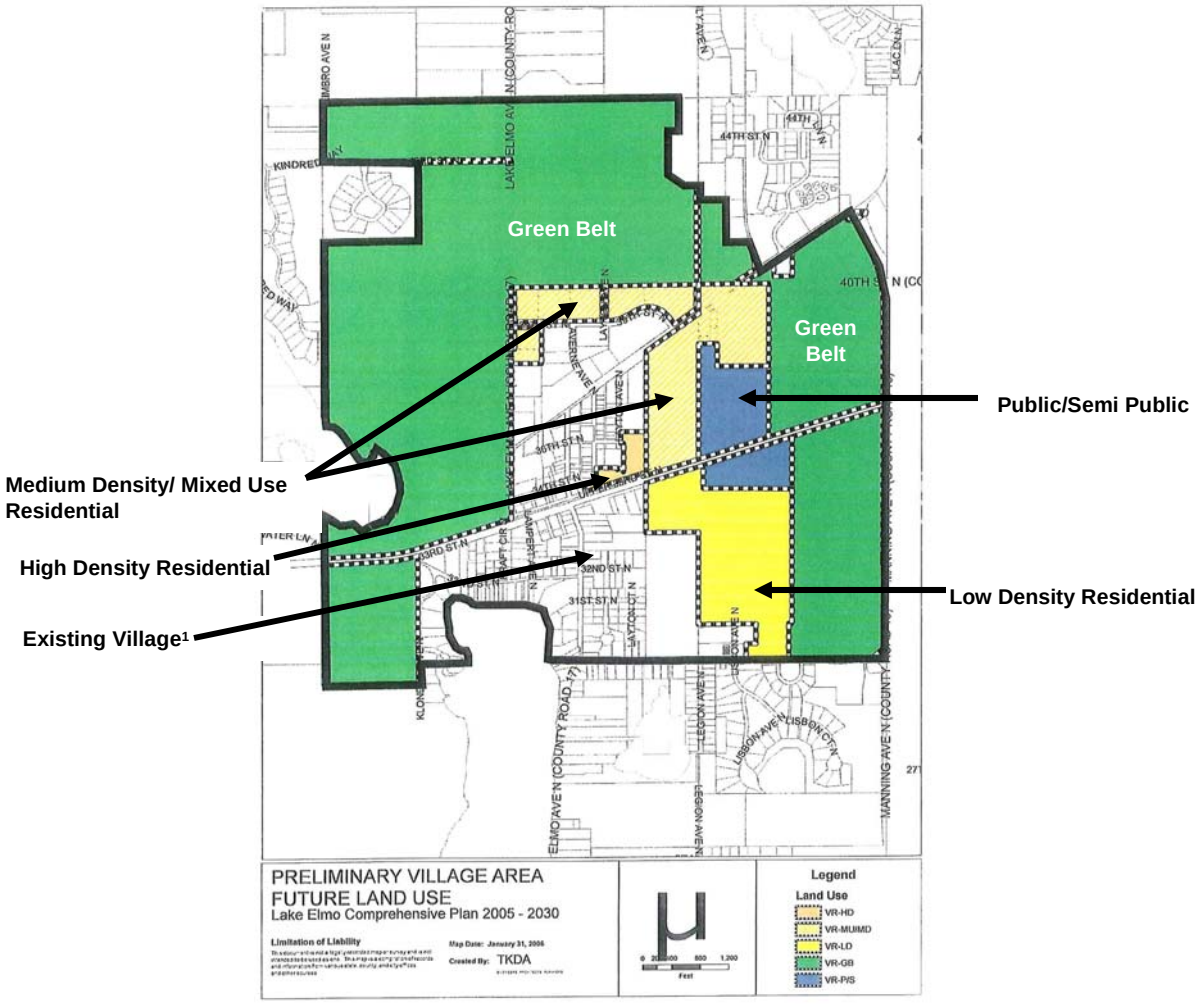


Masterplan Composite Land Use	Acres	Scenario A - 600	Scenario B -1,000	Scenario C - 1,600
New Mixed Use	72.46	-	-	-
* Mixed Use (Non-Residential[1]) 16.46 acres	-	200,000 ft^2	200,000 ft^2	200,000 ft^2
* Mixed Use (Residential) 56.0 acres	-	100 units	200 units	400 units
New Residential	308.55	450 units	700 units	1015 units
Potential Future Redevelopment	44.52	-		-
* Non-Residential[1]		250,000 ft^2	250,000 ft^2	250,000 ft^2
* Residential		50 units	100 units	185 units
New Civic/Institutional Development	16.47	200,000 ft^2	200,000 ft^2	200,000 ft^2
Buffer Zone, Open Space	226.02	No development	No development	No development
Existing Old Village City Fabric	305.67	No development	No development	No development
Existing Open Space	45.29	No development	No development	No development
Horse Farm	74.10	No development	No development	No development
New Parks/Open Space	35.35	No development	No development	No development
Total Residential Units		**600 units**	**1,000 units**	**1,600 units**
Total Square Footages of Non-Residential Uses		**650,000 ft^2**	**650,000 ft^2**	**650,000 ft^2**

[1] Non-residential includes 300,000 ft^2 of commercial and 150,000 ft^2 of office use

Figure 6-2

Required Lake Elmo Comprehensive Plan AUAR Development Scenario (Scenario D)



Village Future Land Use Designation	Acres	Housing Units	Commercial/Office (ft^2)	Institutional (ft^2)
Village Residential High Density (VR/HD)	7	102	-	-
Village Residential Low Density (VR/LD)	77	339	-	-
Village Residential Mixed Use/Medium Density (VR MU/MD)	86	465	450,000	
Village Residential Public/Semi Public (VR P/S)	43	-	-	200,000
Village Residential Green Belt (VR GB)	717	-	-	-
No designation (existing Village Area)[1]	199	-	-	-
Total	**1,129**	**906**	**450,000**	**200,000**

[1] Refers to the "white" areas on the Village Area Future Land Use Map

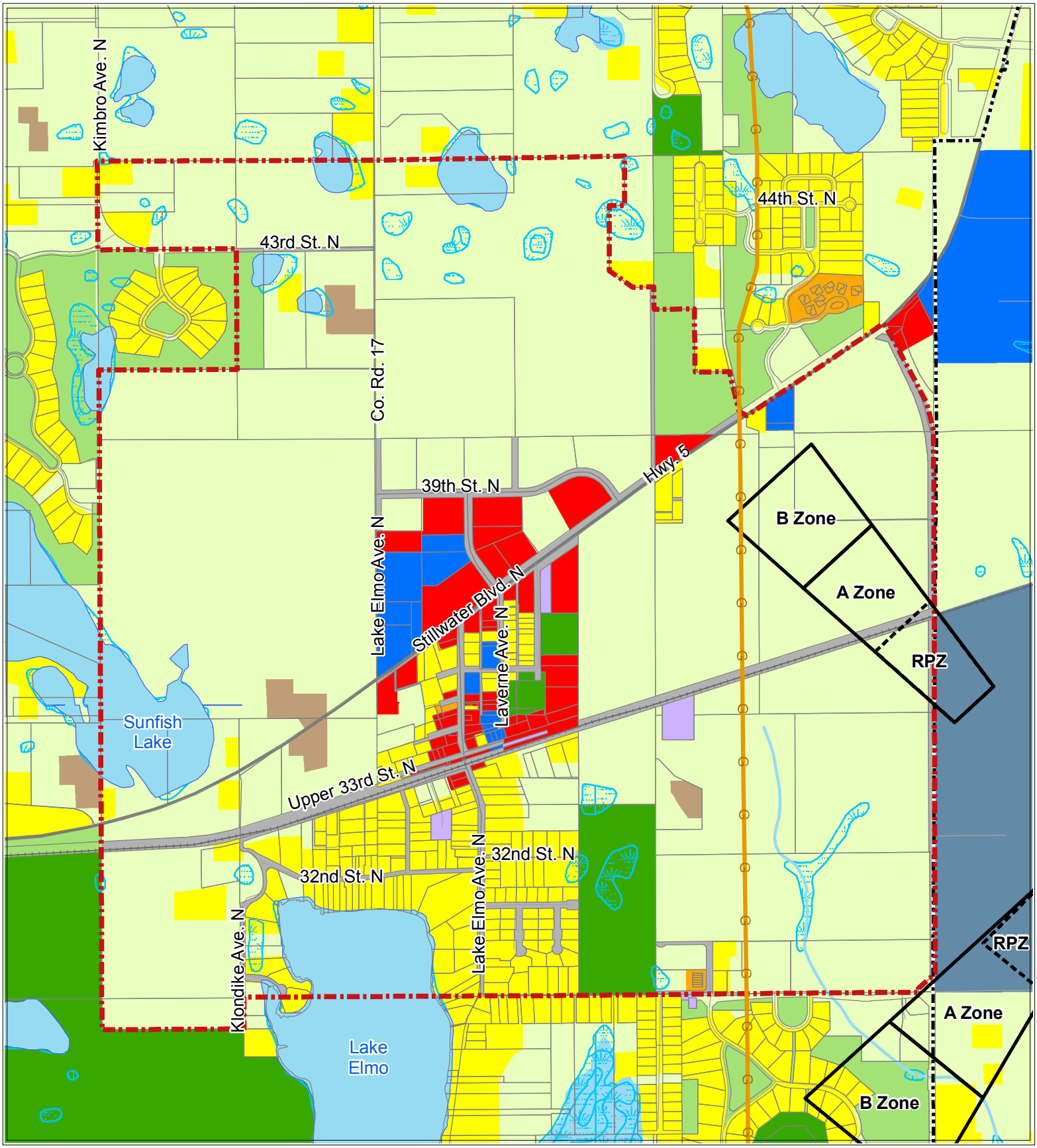


Figure 9-1
2005 Existing Land Use
Lake Elmo AUAR

N

600 0 600 Feet

- AUAR Boundary
- Municipal Boundary
- Farmstead
- Single Family Detached
- Single Family Attached
- Retail and Other Commercial
- Industrial and Utility
- Institutional
- Park, Recreational or Preserve
- Open Space
- Airport
- Agricultural
- Right-of-Way
- Open Water
- NWI Wetland
- Approximate Gas Pipeline Location
- Airport RPZs
- Airport State Safety Zones

Disclaimer: A Joint Airport Zoning Board will be established to determine the future state safety zones. The final safety zones may change based upon what the zoning board adopts.

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September 22, 2008
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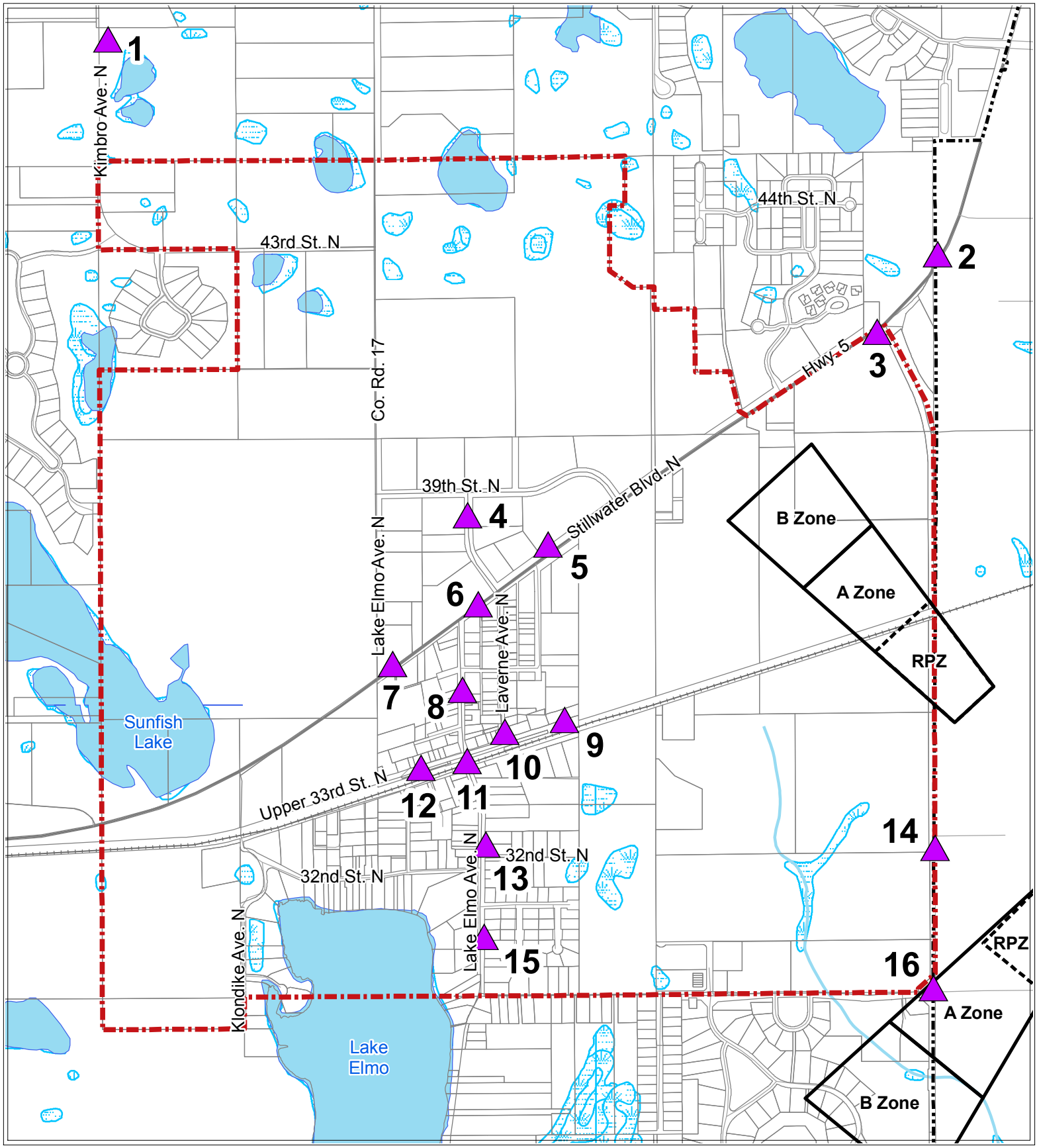

Figure 9-2
Potential Environmental Hazard Sites
Lake Elmo AUAR

N

500 0 500 Feet

Potential Environmental Hazard Sites
AUAR Boundary
Municipal Boundary
Open Water
NWI Wetland
Airport RPZs
Airport State Safety Zones

Disclaimer: A Joint Airport Zoning Board will be established to determine the future state safety zones. The final safety zones may change based upon what the zoning board adopts.

Bonestroo

June 11, 2008
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Figure 9-3 Lake Elmo Airport Existing Height Restrictions

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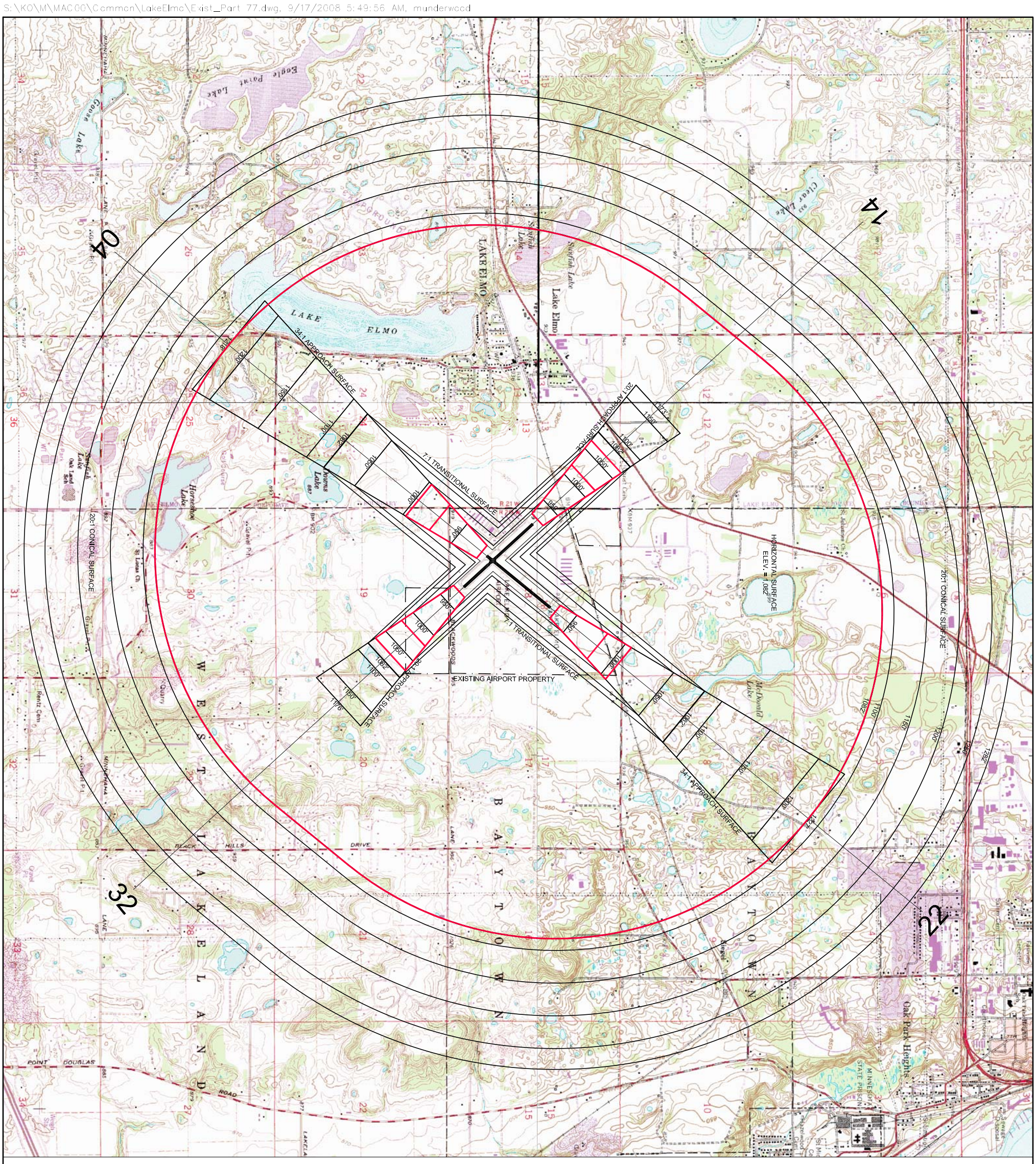

LEGEND:

FUTURE AIRPORT SAFETY ZONES - EXISTING RUNWAYS

FAR PART 77 SURFACES

EXISTING AIRPORT PROPERTY LINE

EXISTING AIRPORT ZONING DIMENSIONS

RUNWAY	ZONE	INNER WIDTH	LENGTH	OUTER WIDTH	SLOPE
04/22	SAFETY ZONE A	500'	1,665'	999'	34:1
	SAFETY ZONE B	999'	832'	1,249'	34:1
	SAFETY ZONE C	10,000' RADIUS FROM END OF PRIMARY SURFACE			
14/32	SAFETY ZONE A	500'	1,900'	1,070'	20:1
	SAFETY ZONE B	1,070'	950'	1,355'	20:1
	SAFETY ZONE C	5,000' RADIUS FROM END OF PRIMARY SURFACE			

DISCLAIMER:
A JOINT AIRPORT ZONING BOARD WILL BE ESTABLISHED TO DETERMINE THE FUTURE STATE SAFETY ZONES. THE FINAL SAFETY ZONE SIZES MAY CHANGE BASED UPON WHAT THE ZONING BOARD ADOPTS.

N

DRAWING SCALE IN FEET
0 1,500 3,000 4,500

EXISTING PART 77 HEIGHT RESTRICTIONS

SHEET 1

LAKE ELMO AIRPORT

ISSUE DATE SEPT. 17, 2008
DESIGNED BY MRU
DRAWN BY MRU

Short Elliott Hendrickson, Inc. ® (SEH)
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SEH
3535 VADNAIS CENTER DR
ST PAUL, MN 55110
PHONE: 651.490.2000
FAX: 651.490.2150
WATTS: 800.325.2055
www.sehinc.com

Figure 9-4 Lake Elmo Airport Future Height Restrictions

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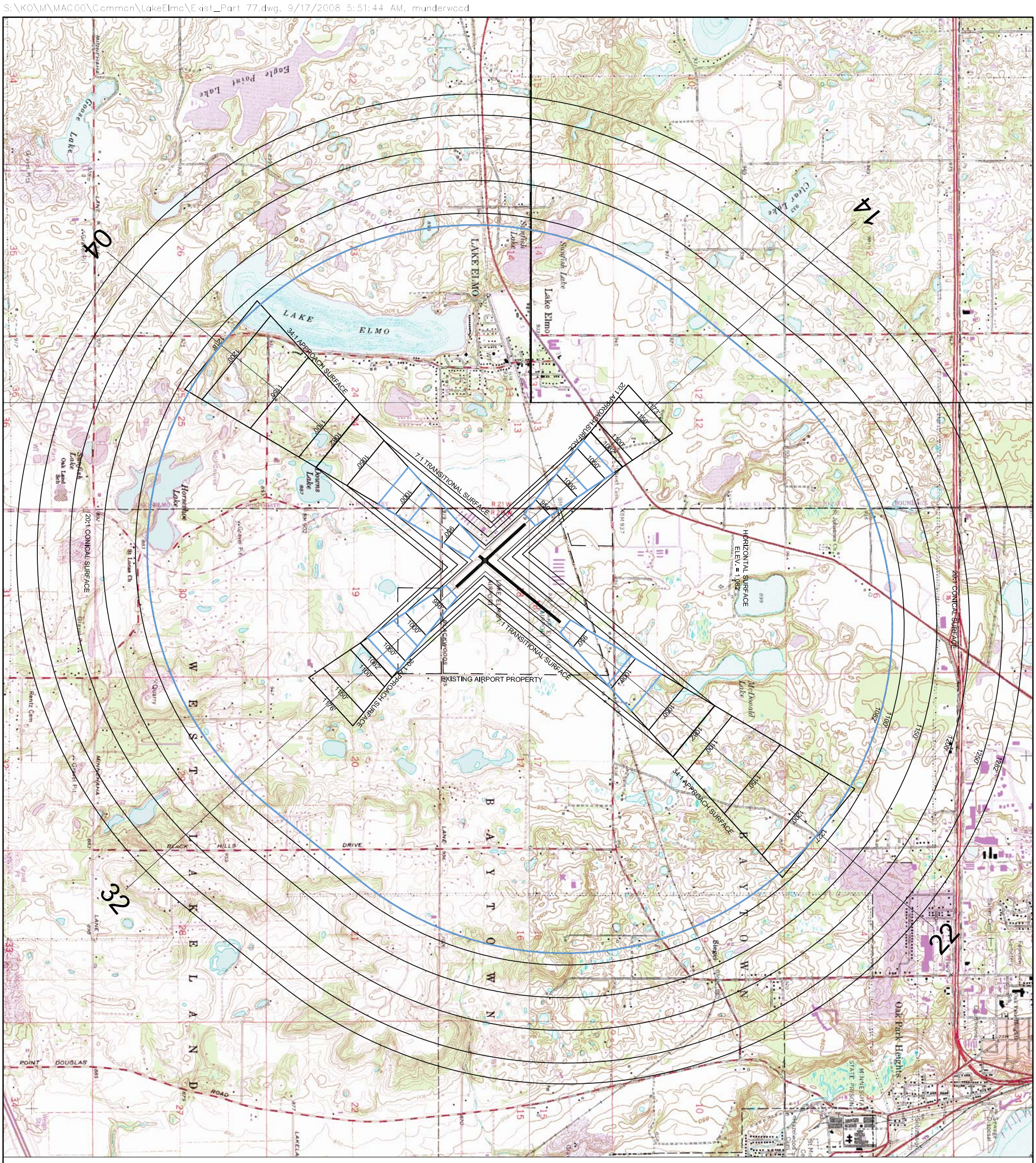

LEGEND:

FUTURE AIRPORT SAFETY ZONES - FUTURE RUNWAYS

FAR PART 77 SURFACES

EXISTING AIRPORT PROPERTY LINE

FUTURE AIRPORT ZONING DIMENSIONS

RUNWAY	ZONE	INNER WIDTH	LENGTH	OUTER WIDTH	SLOPE
04/22	SAFETY ZONE A	500'	2,133'	1,140'	34:1
	SAFETY ZONE B	1,140'	1,067'	1,460'	34:1
	SAFETY ZONE C	10,000' RADIUS FROM END OF PRIMARY SURFACE			
14/32	SAFETY ZONE A	500'	1,900'	1,070'	20:1
	SAFETY ZONE B	1,070'	950'	1,355'	20:1
	SAFETY ZONE C	5,000' RADIUS FROM END OF PRIMARY SURFACE			

DISCLAIMER:
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N

DRAWING SCALE IN FEET
0 1,500 3,000 4,500

SHEET 2

FUTURE PART 77 HEIGHT RESTRICTIONS

LAKE ELMO AIRPORT

ISSUE DATE SEPT. 17, 2008
DESIGNED BY MRU
DRAWN BY MRU

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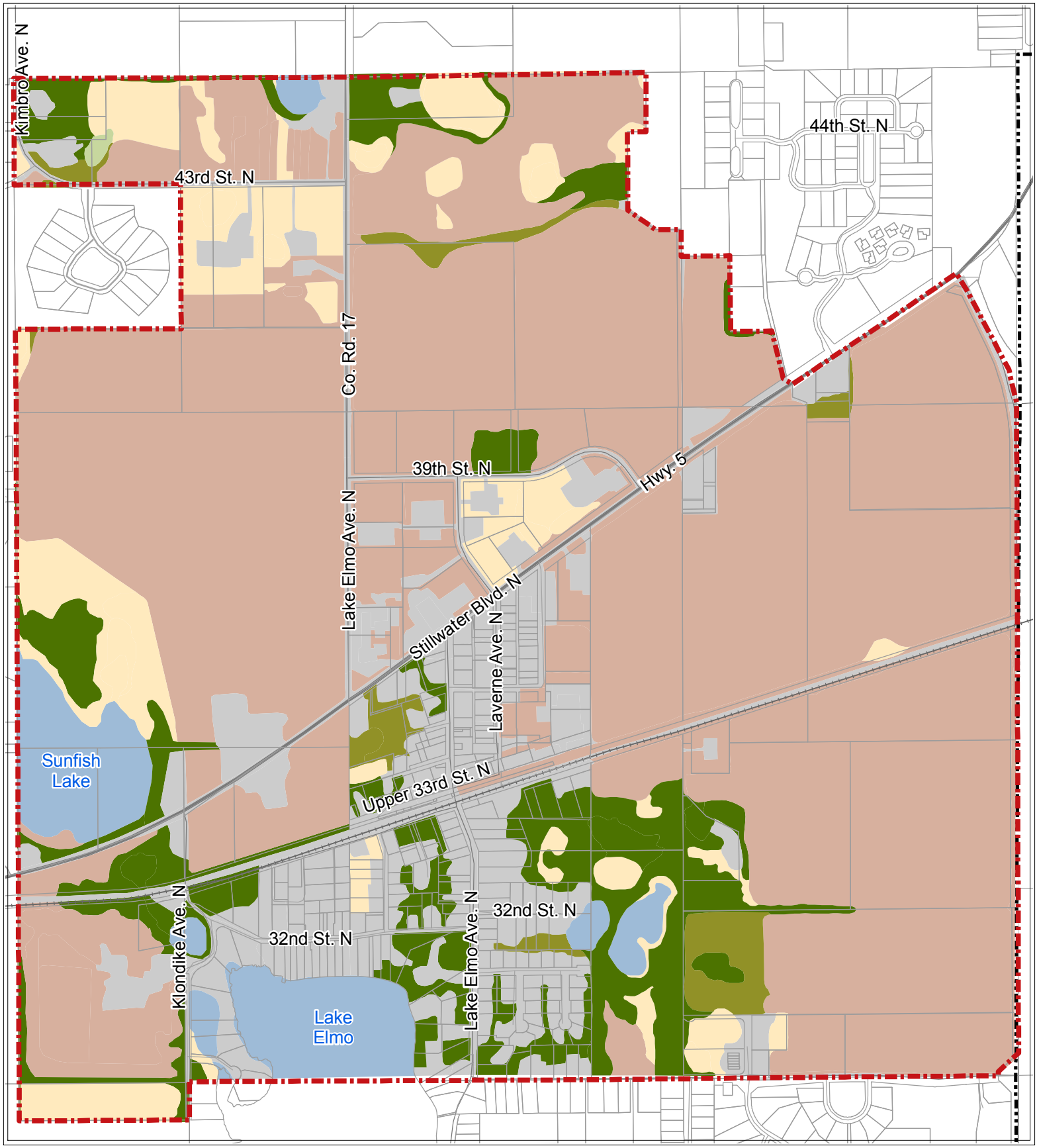

Figure 10-1
Minnesota Land Cover Classification System (MLCCS)
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Parcels
Herbaceous
Open Water
Artificial Surface and Associated Areas
Planted or Cultivated Vegetation
Forest
Woodlands
Shrubland

Bonestroo

September 5, 2007
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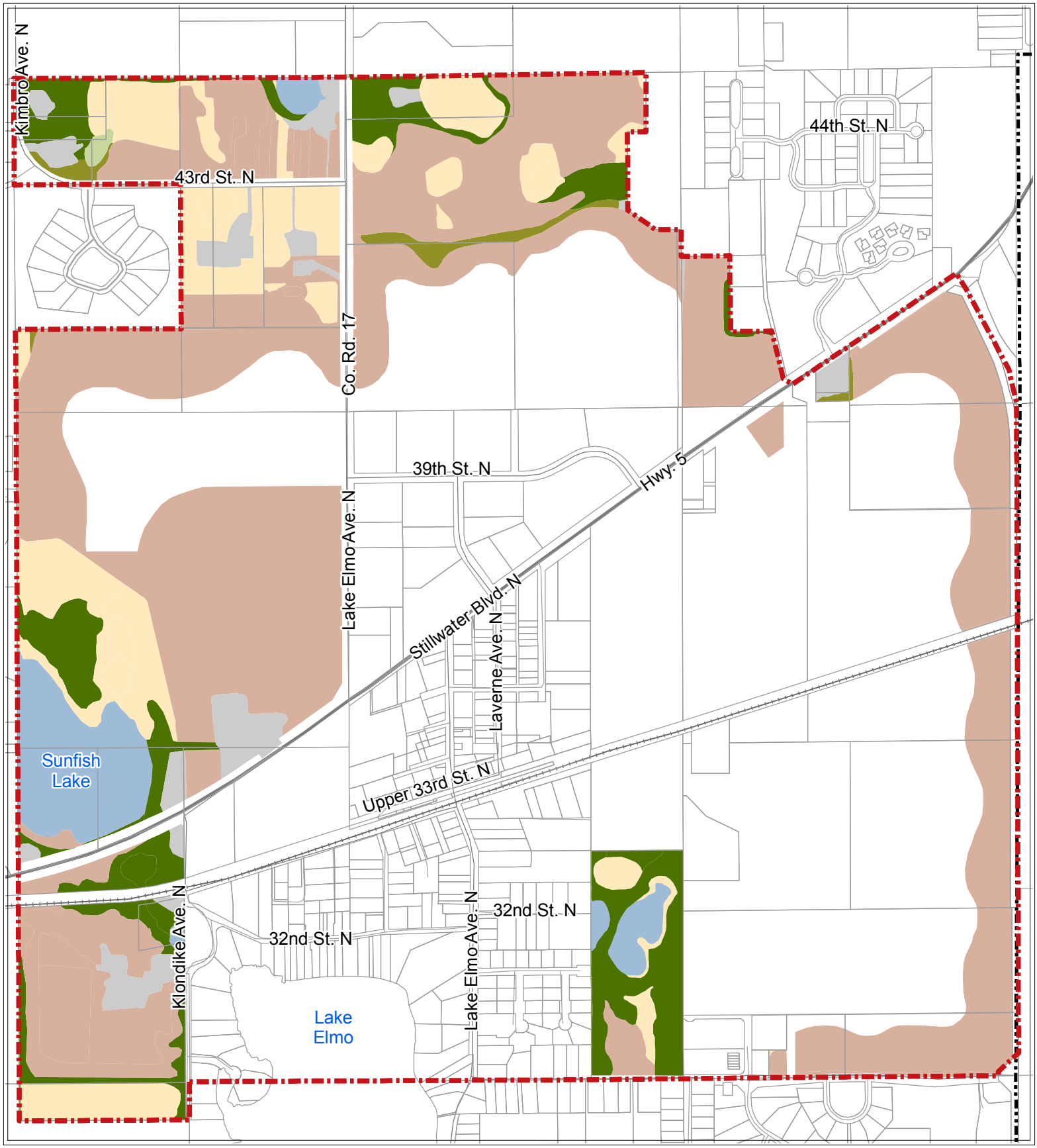

Figure 10-2
Potential Land Cover Conversion (Village Master Plan)
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Parcels
Herbaceous
Open Water
Artificial Surface and Associated Areas
Planted or Cultivated Vegetation
Forest
Woodlands
Shrubland

Bonestroo

November 12, 2008
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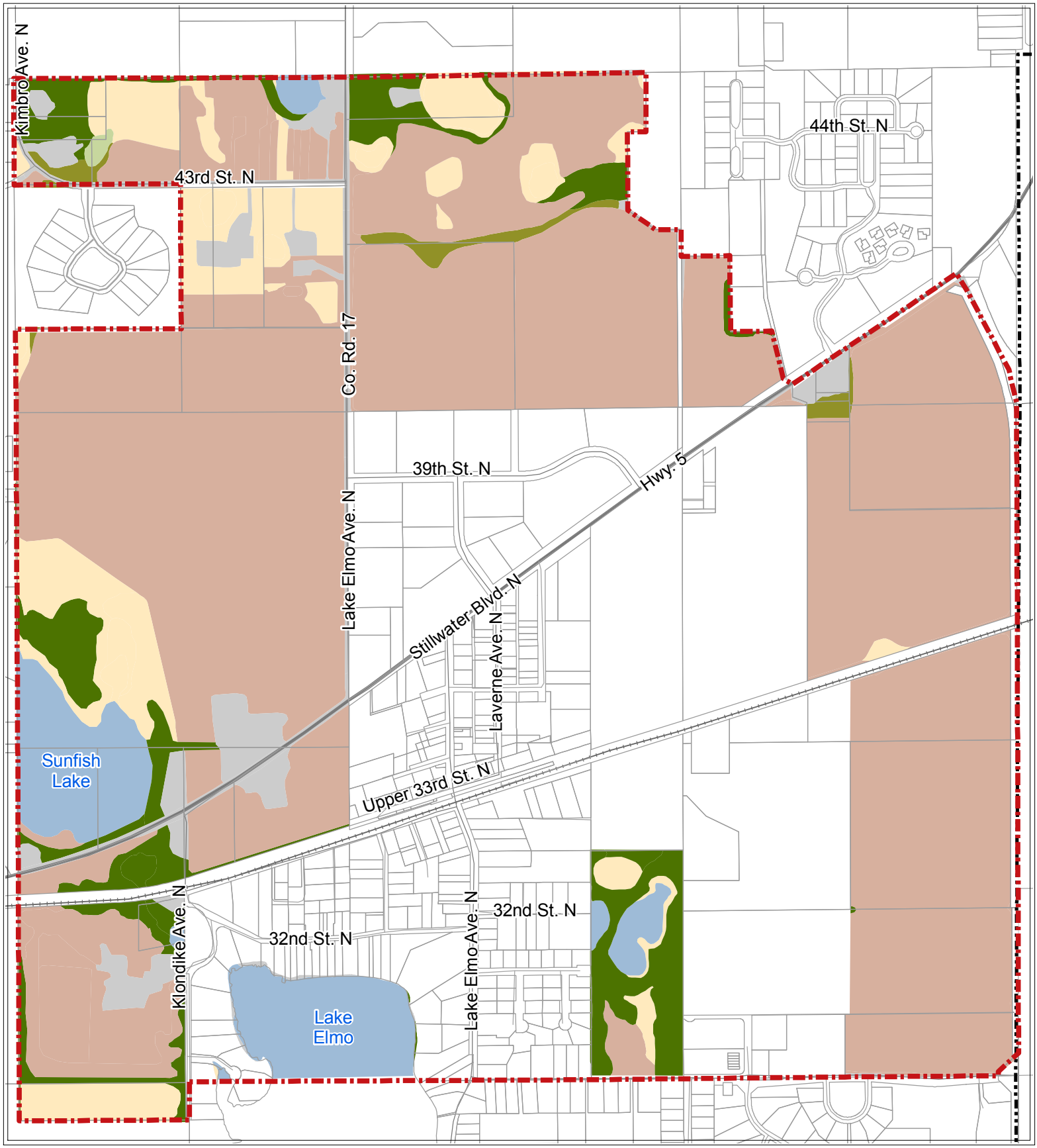

Figure 10-3
Potential Land Cover Conversion (City Comprehensive Plan)
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Parcels
Herbaceous
Open Water
Artificial Surface and Associated Areas
Planted or Cultivated Vegetation
Forest
Woodlands
Shrubland

Bonestroo

November 12, 2008
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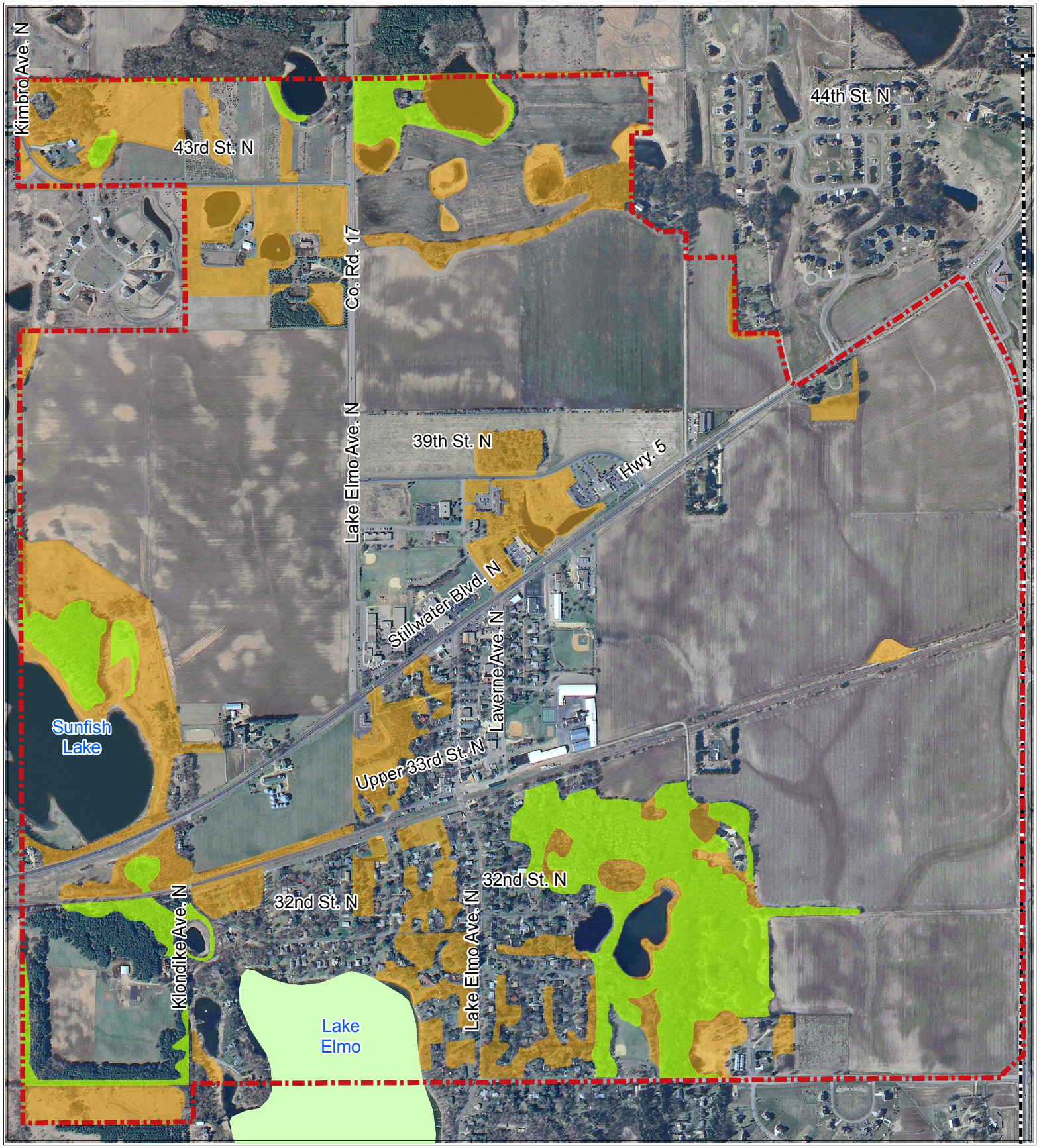

Figure 11-1
Natural Areas and Unique Features
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
MNDNR Mapped Rare Native Plant Communities
Semi-Natural Area (From MLCCS)
Natural Area (From MLCCS)

Bonestroo

September 5, 2007
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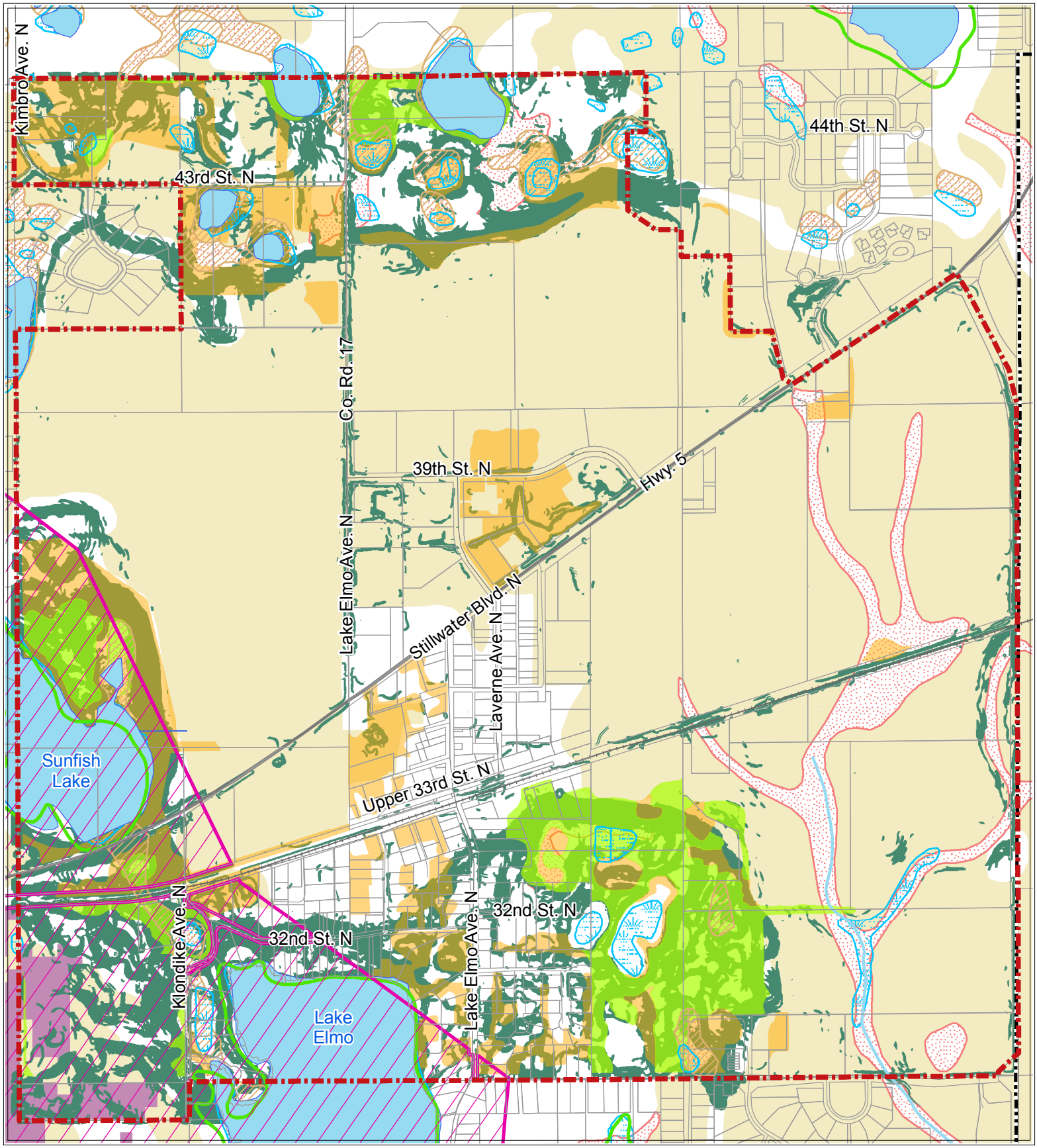

Figure 11-2
Comprehensive Land Suitability
Lake Elmo AUAR

N

500 0 500 Feet

- AUAR Boundary
- Municipal Boundary
- DNR Metro Wildlife Corridor
- FEMA 100-Year Floodplain
- Open Water
- NWI Wetland
- Hydric Soil
- DNR Outstanding Regional Significant Ecological Area
- Prime Agricultural Soil
- Prime Agricultural Soil When Drained
- MLCCS Natural Area
- MLCCS Semi-Natural Area
- Steep Slope (>18%)

Bonestroo

September 6, 2007
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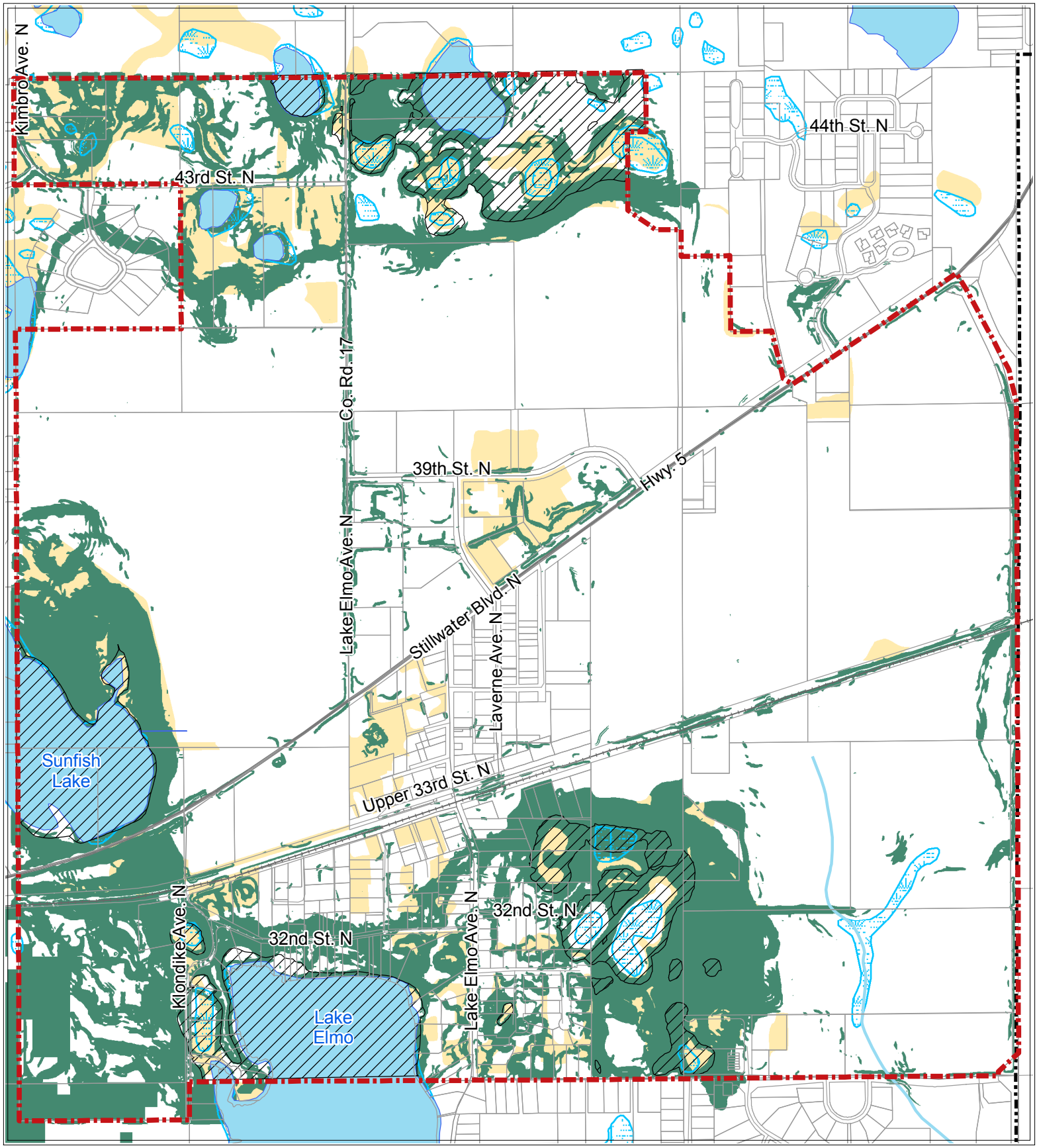

Figure 11-3
Ecologically Sensitive Areas
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
FEMA 100-Year Floodplain
Open Water
NWI Wetland
Primary Areas
Secondary Areas

Bonestroo

July 10, 2008
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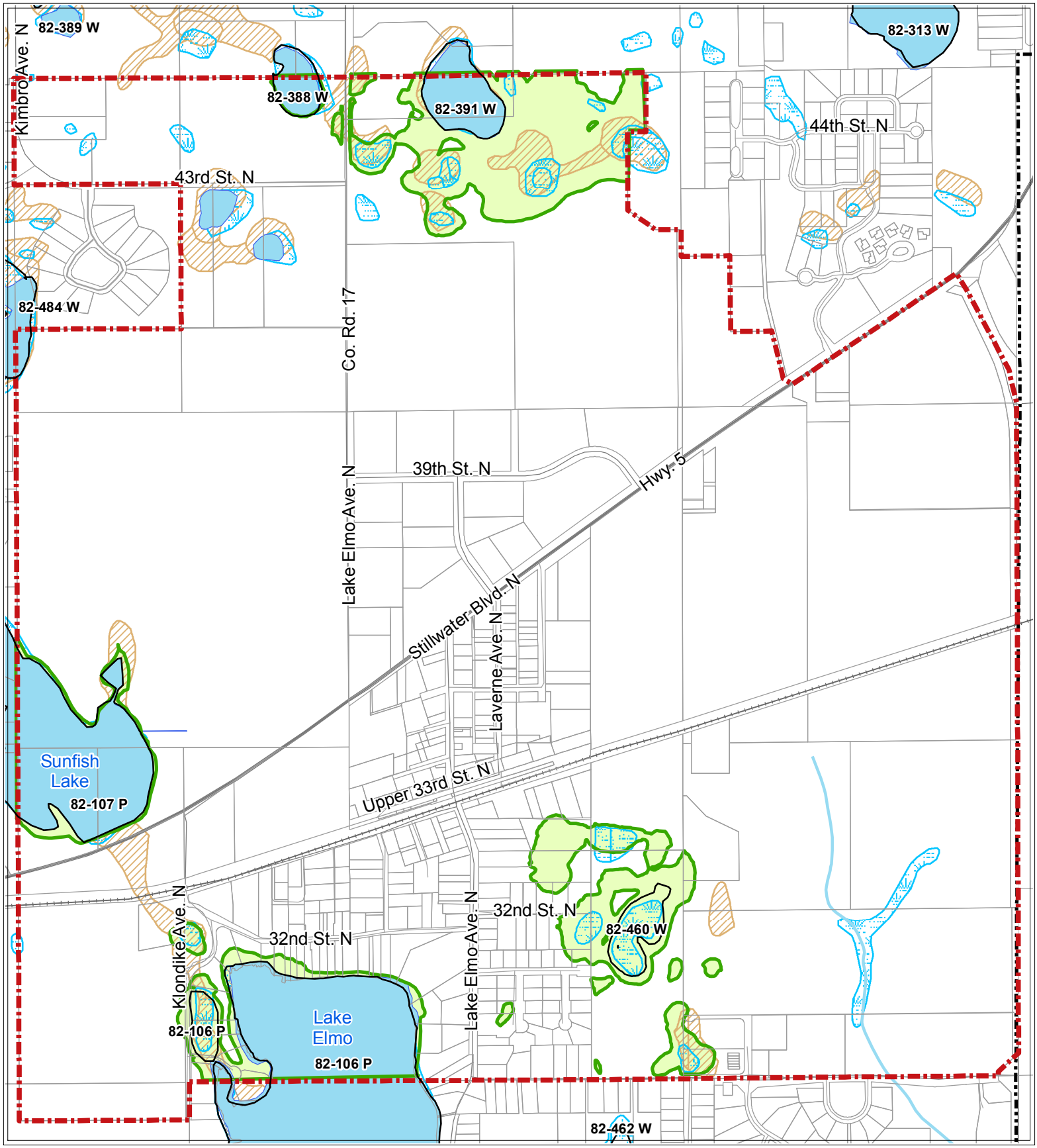

Figure 12-1
Hydrological Features
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
100-Year Floodplain - Valley Branch Watershed District
82-402W DNR Public Waters (ID)
Open Water
NWI Wetland
Hydric Soil

Bonestroo

November 12, 2008
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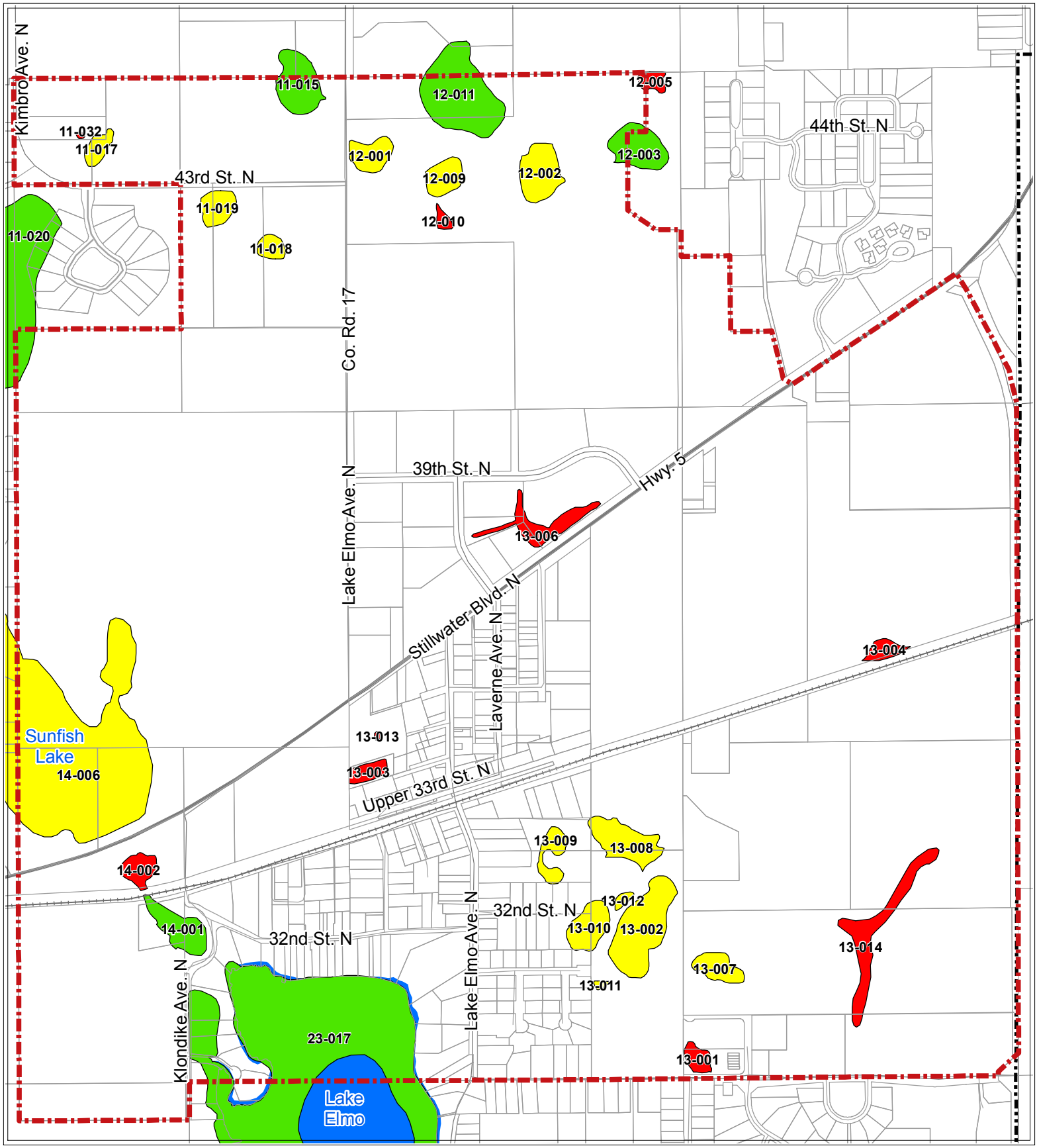

Figure 12-2
VBWD Wetland Management Classification Ratings
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Preserve Class Wetland
Management 1 Class Wetland
Managment 2 Class Wetland
Deep Water Habitat

Bonestroo

August 14, 2008
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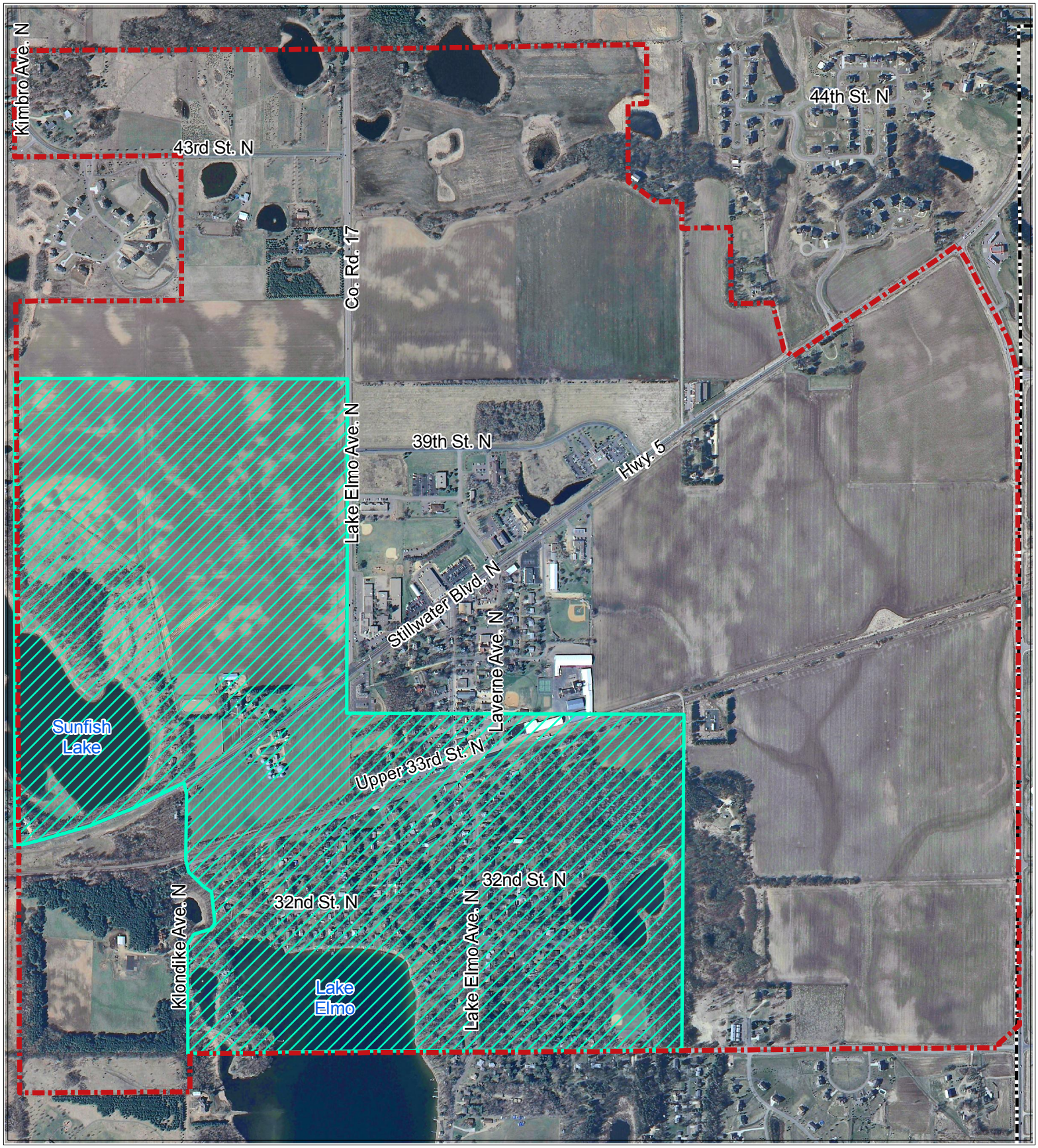

Figure 13-1
Drinking Water Supply Management Area
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Drinking Water Supply Management Area

Bonestroo

June 22, 2007
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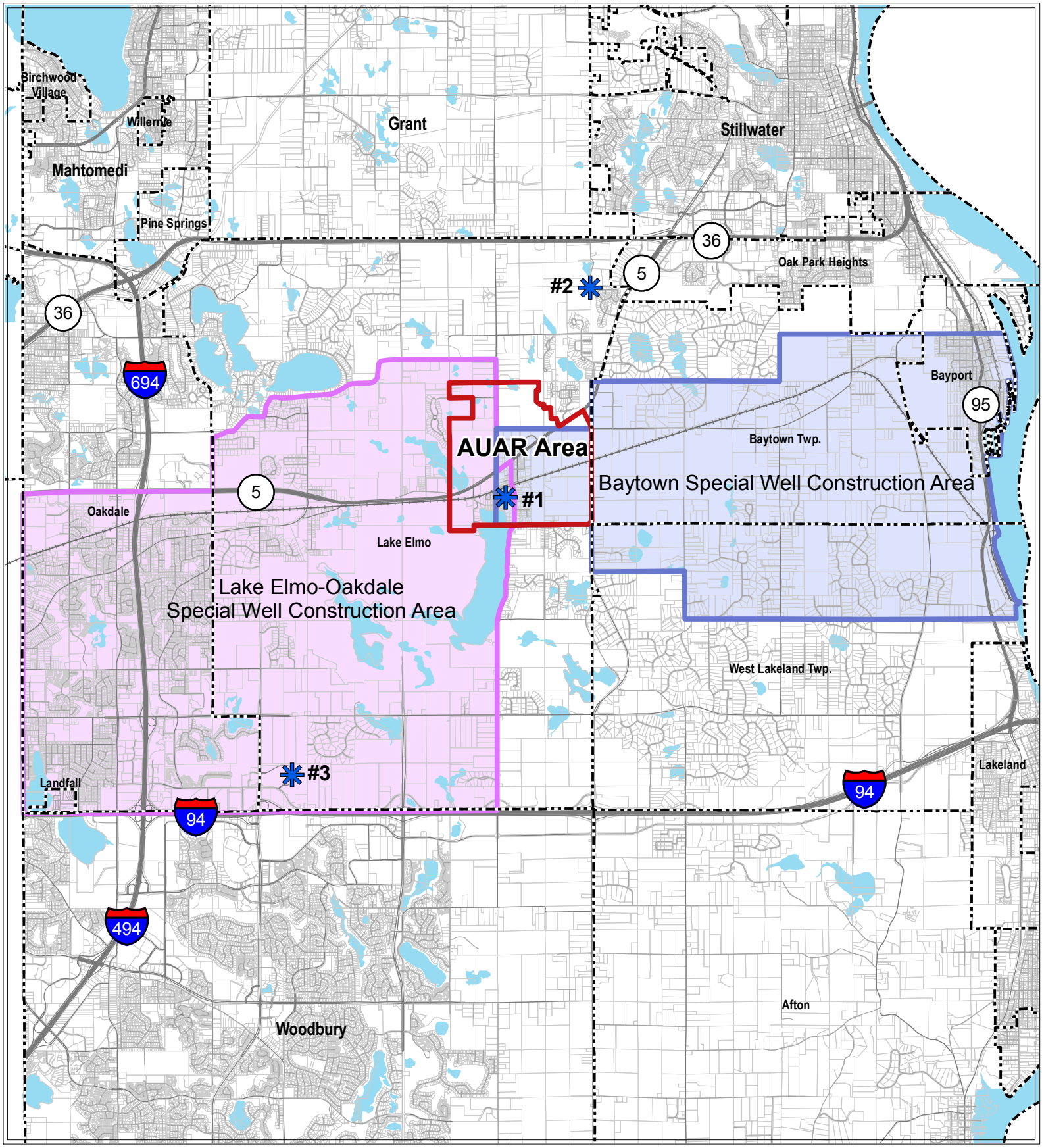

Figure 13-2
Special Well Construction Areas
Lake Elmo AUAR

N

1 0.5 0 1 Miles

Municipal Well
AUAR Boundary
Municipal Boundary
Open Water

Bonestroo

June 6, 2008
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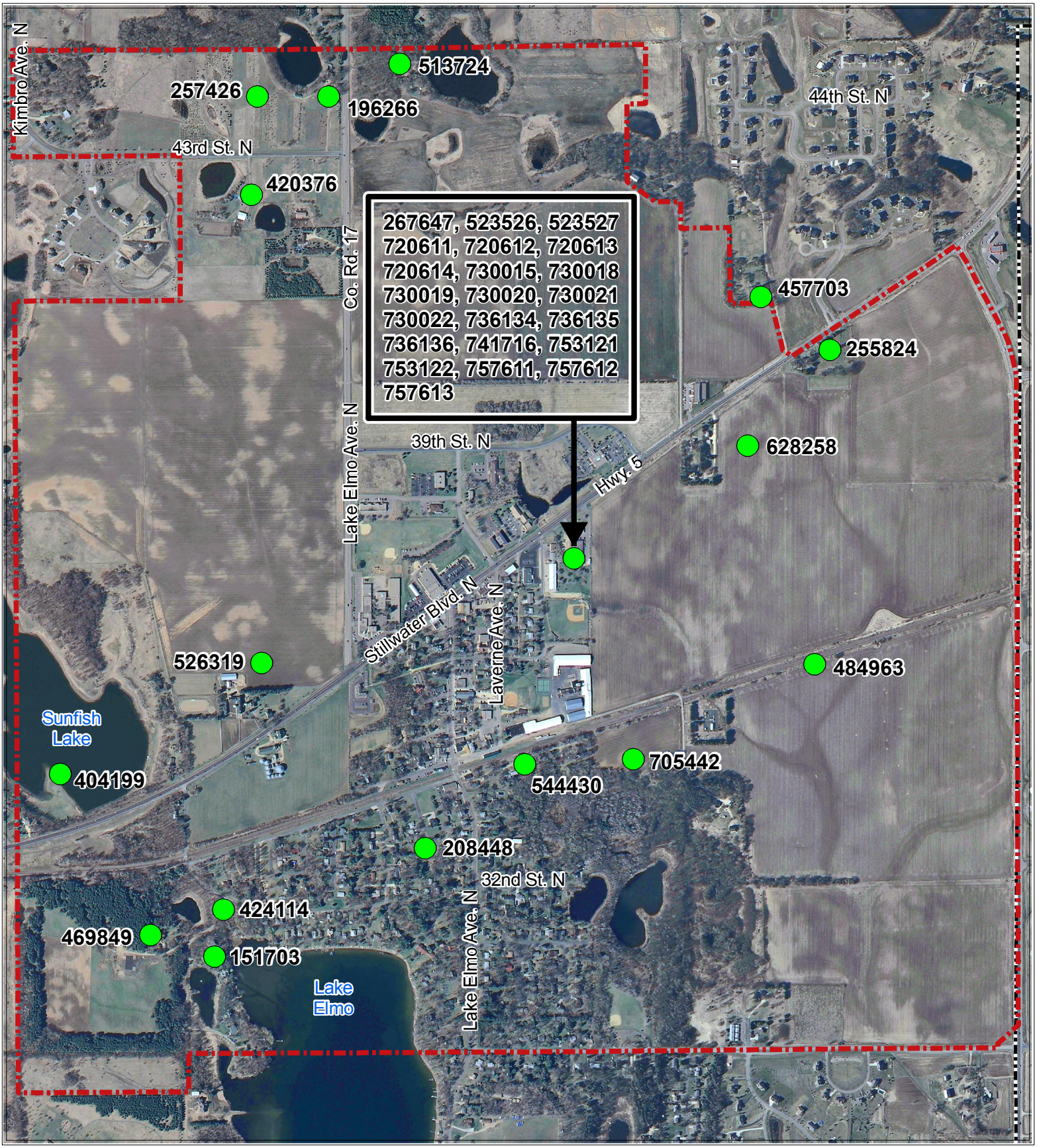

Figure 13-3
Existing Wells
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Well Location

Bonestroo

May 30, 2008
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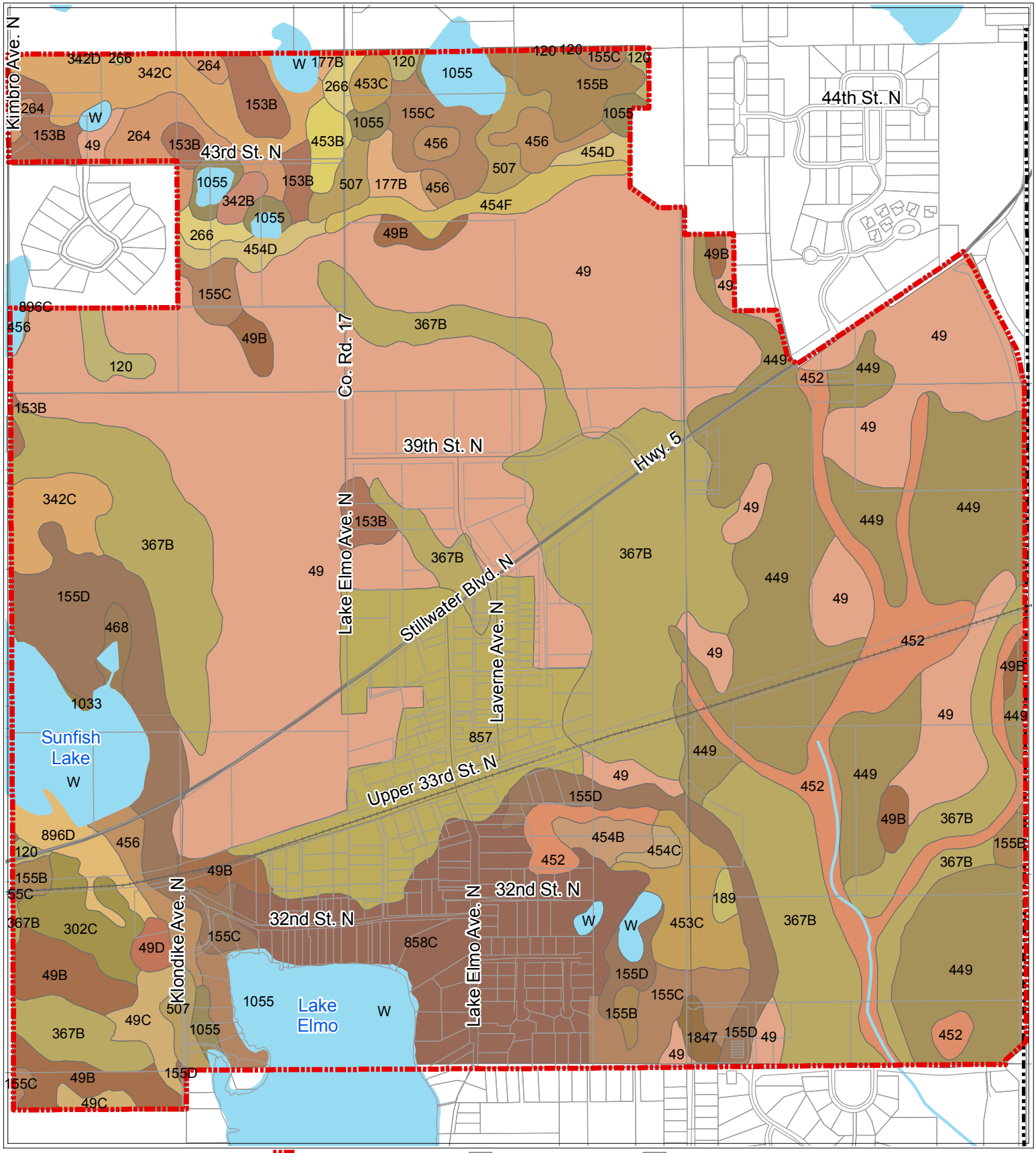

Figure 16-1
Soil Types
Lake Elmo AUAR

AUAR Boundary
Municipal Boundary
1033, Udifluvents
1055, Aquolls and histosols, ponded
120, Brill silt loam
153B, Santiago silt loam
155B, Chetek sandy loam
155C, Chetek sandy loam
155D, Chetek sandy loam
177B, Gotham loamy sand
1847, Barronett silt loam, sandy substratum
189, Auburndale silt loam
264, Freeon silt loam
266, Freer silt loam
302C, Rosholt sandy loam
342B, Kingsley sandy loam
342C, Kingsley sandy loam
342D, Kingsley sandy loam
367B, Campia silt loam
449, Crystal Lake silt loam
452, Comstock silt loam
453B, De montreville loamy fine sand
453C, De montreville loamy fine sand
454B, Mahtomedi loamy sand
454C, Mahtomedi loamy sand
454D, Mahtomedi loamy sand
454F, Mahtomedi loamy sand
456, Barronett silt loam
468, Otter silt loam
49, Antigo silt loam
49B, Antigo silt loam
49C, Antigo silt loam
49D, Antigo silt loam
507, Poskin silt loam
857, Urban land-Waukegan complex
858C, Urban land-Chetek complex
896C, Mahtomedi-Kingsley complex
896D, Mahtomedi-Kingsley complex
W, Water

N 500 0 500 Feet

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June 22, 2007
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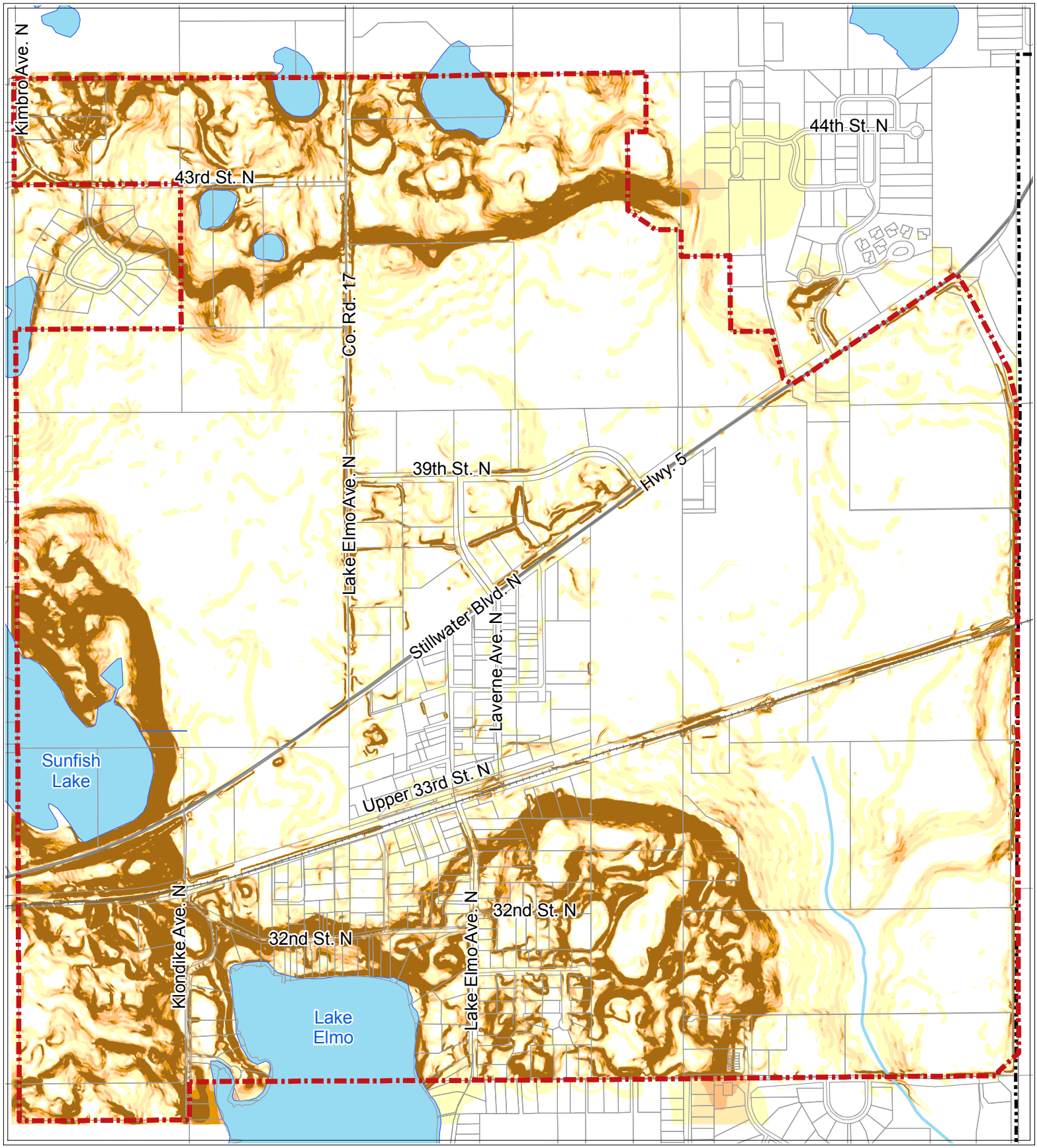

Figure 16-2
Area Slopes
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Open Water
0% - 6% Slope
6% - 12% Slope
12% - 18% Slope
18% - 25% Slope
25% - 30% Slope
>30% Slope

Bonestroo

June 22, 2007
I:/38/3806001/gis/avprojects/slopes.mxd

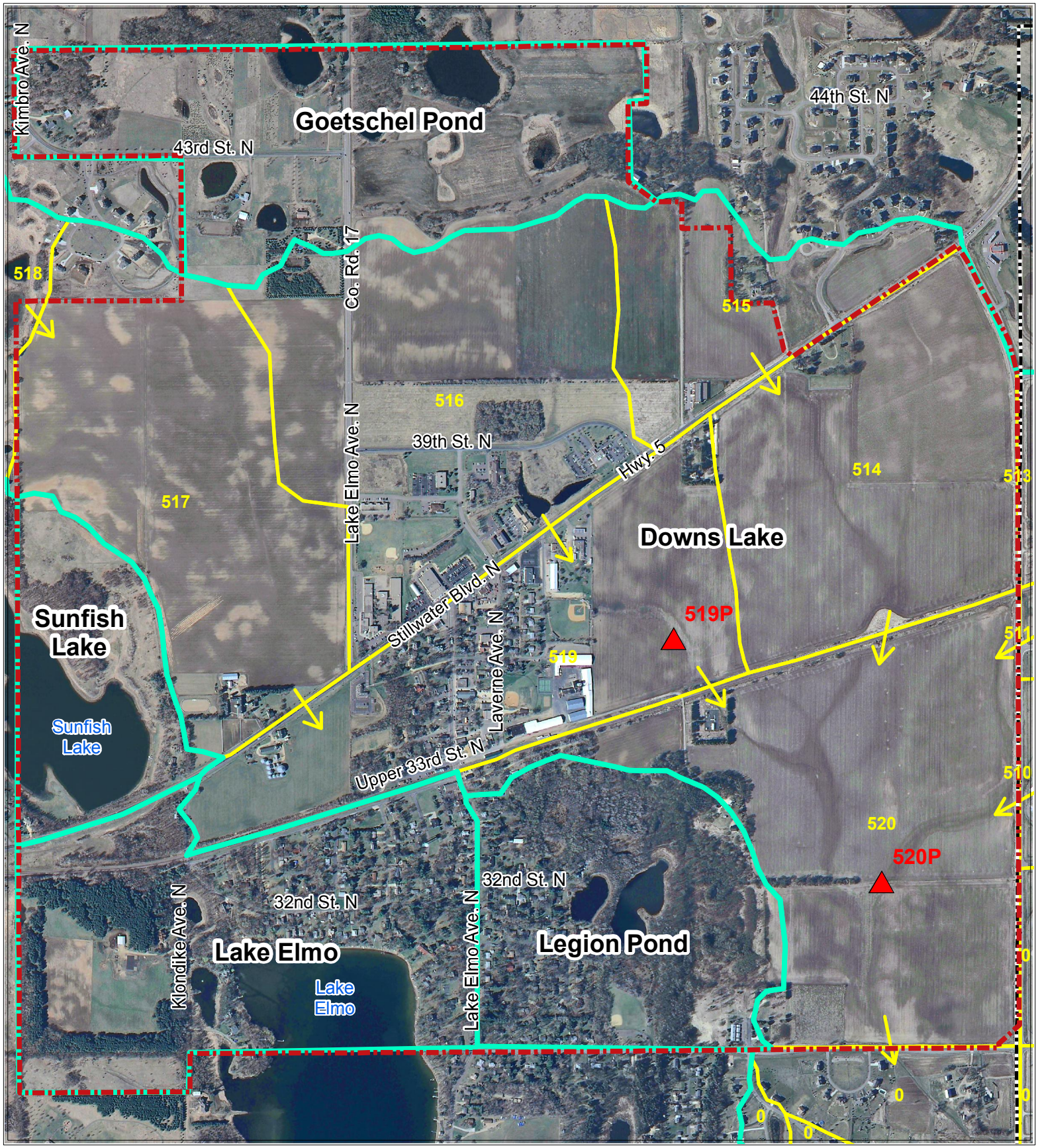

Figure 17-1
Existing Surface Water Analysis Conditions
Lake Elmo AUAR

N

500 0 500 Feet

Proposed Ponds*
AUAR Boundary
Municipal Boundary
Major Watershed Boundary
Minor Watershed Boundary
Drainage Direction

* from 2004 Downtown Area Flooding Analysis

Bonestroo

August 15, 2007
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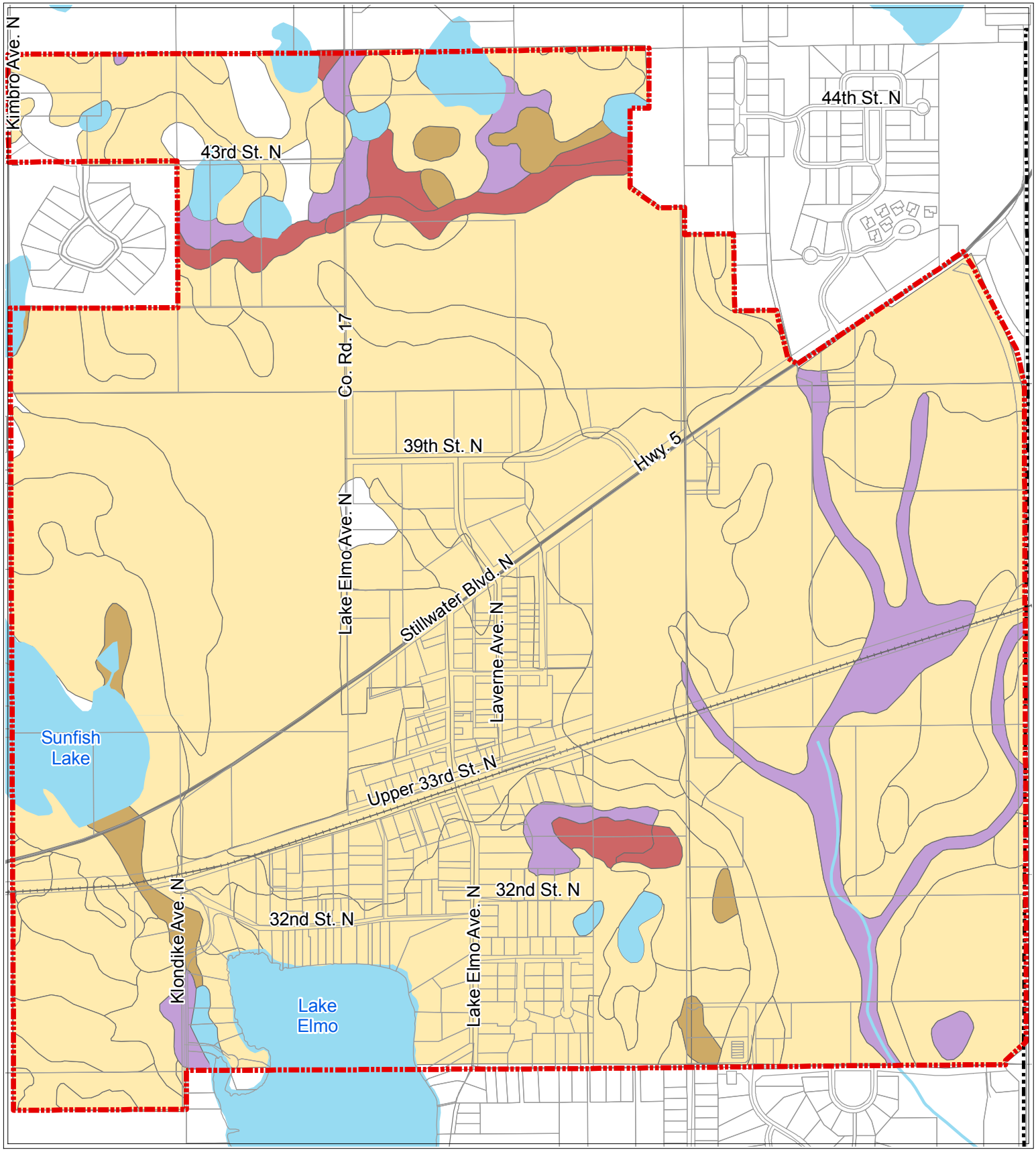

Figure 17-2
Hydrologic Soil Group (HSG)
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary

Hydrologic Soil Group (HSG):

- A
- B
- B/D
- C
- Water

Bonestroo

August 15, 2008
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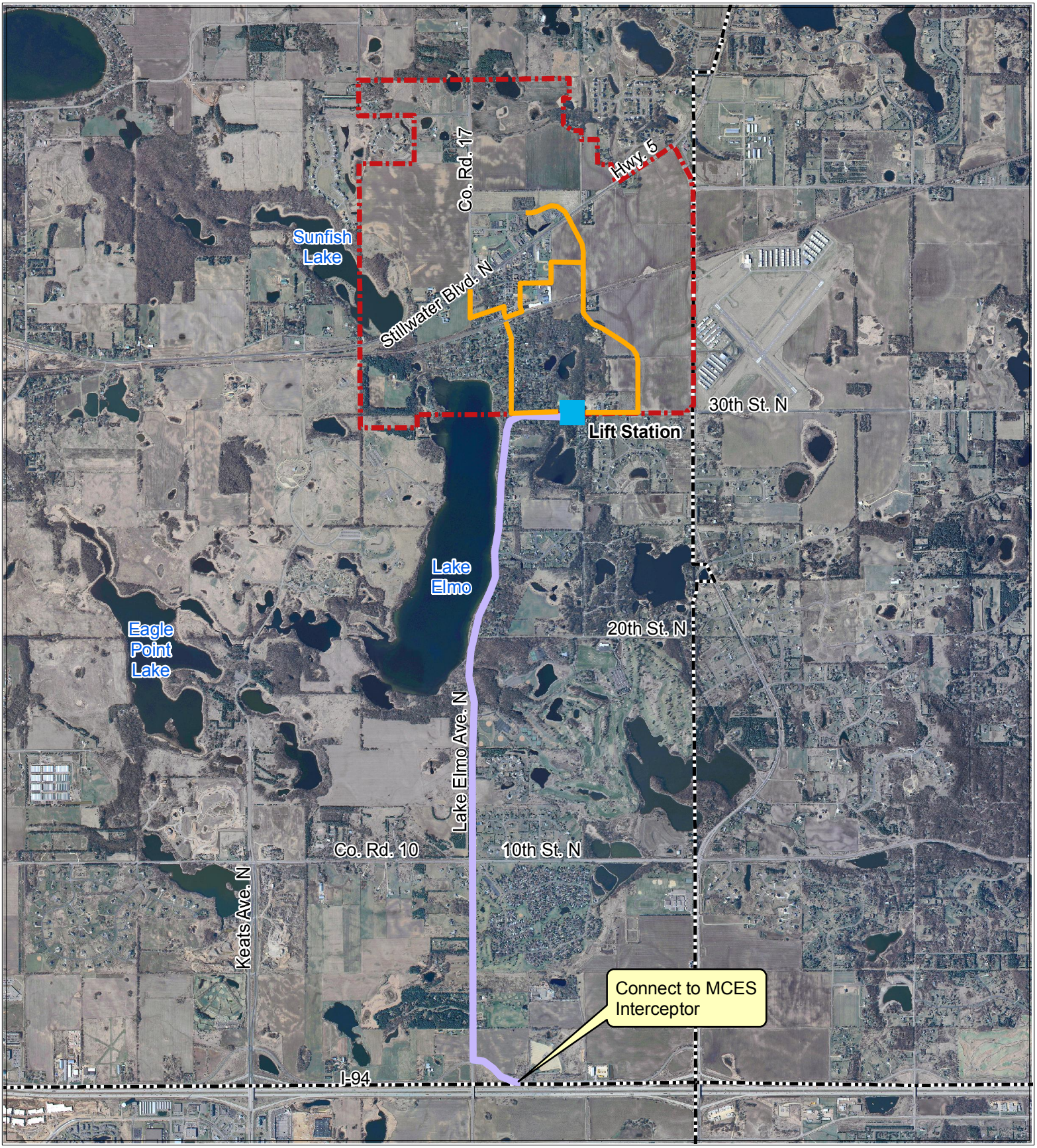

Figure 18-1
Sanitary Sewer Plan
Lake Elmo AUAR

N

3,000 0 3,000 Feet

AUAR Boundary
Municipal Boundary
Lift Station
Future Gravity Trunk Sanitary Sewer
Proposed Forcemain Trunk Sanitary Sewer

Bonestroo

June 16, 2008
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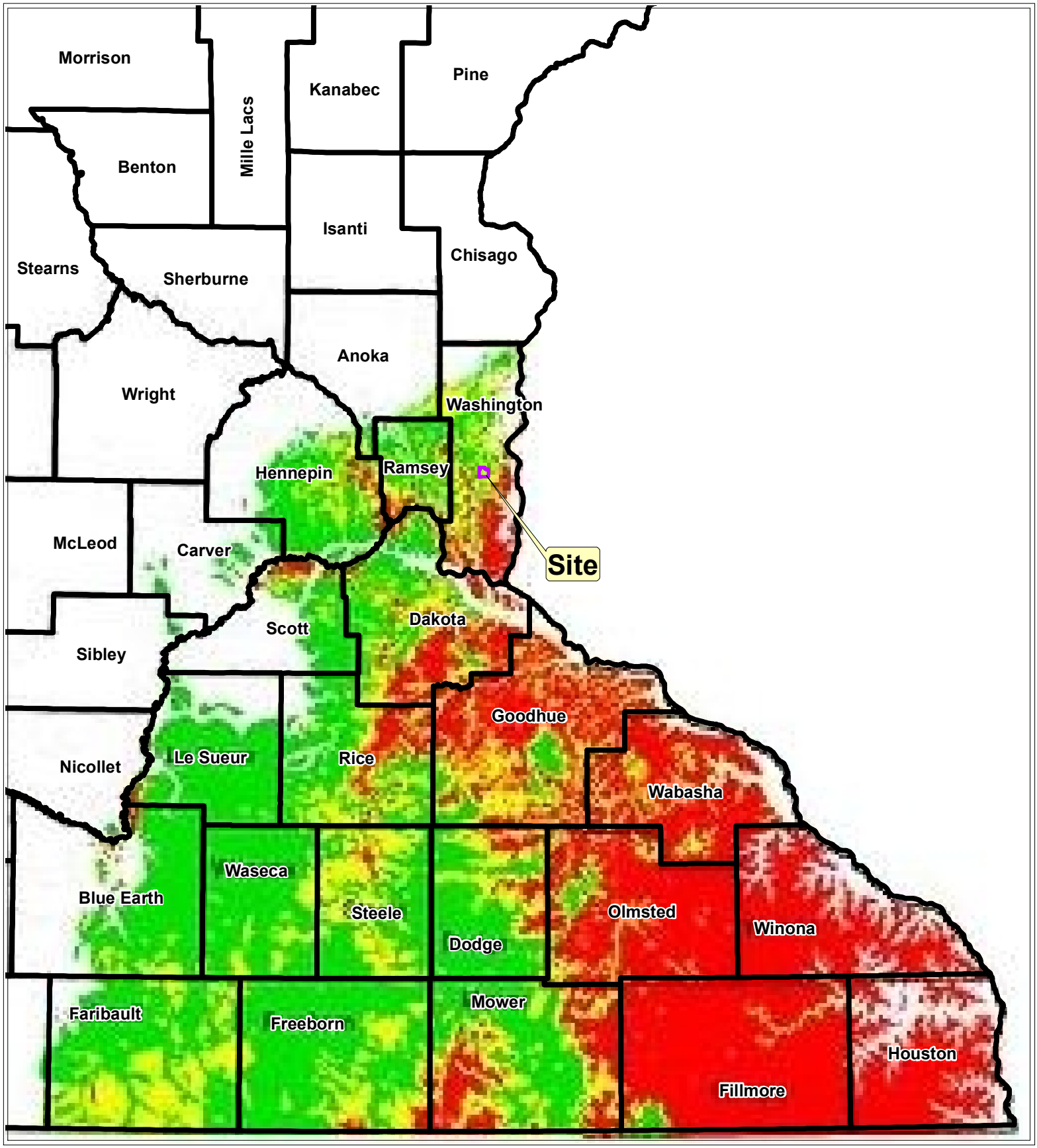

Figure 19-1
Minnesota Karst Lands
Lake Elmo AUAR

N

20 0 20 Miles

Covered Karst. Areas underlain by carbonate bedrock but with more than 100 feet of sediment cover.

Transition Karst. Areas underlain by carbonate bedrock with 50 - 100 feet of sediment cover.

Active Karst. Areas underlain by carbonate bedrock with less than 50 feet of sediment cover.

Source: University of Minnesota, 2002

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September 6, 2007
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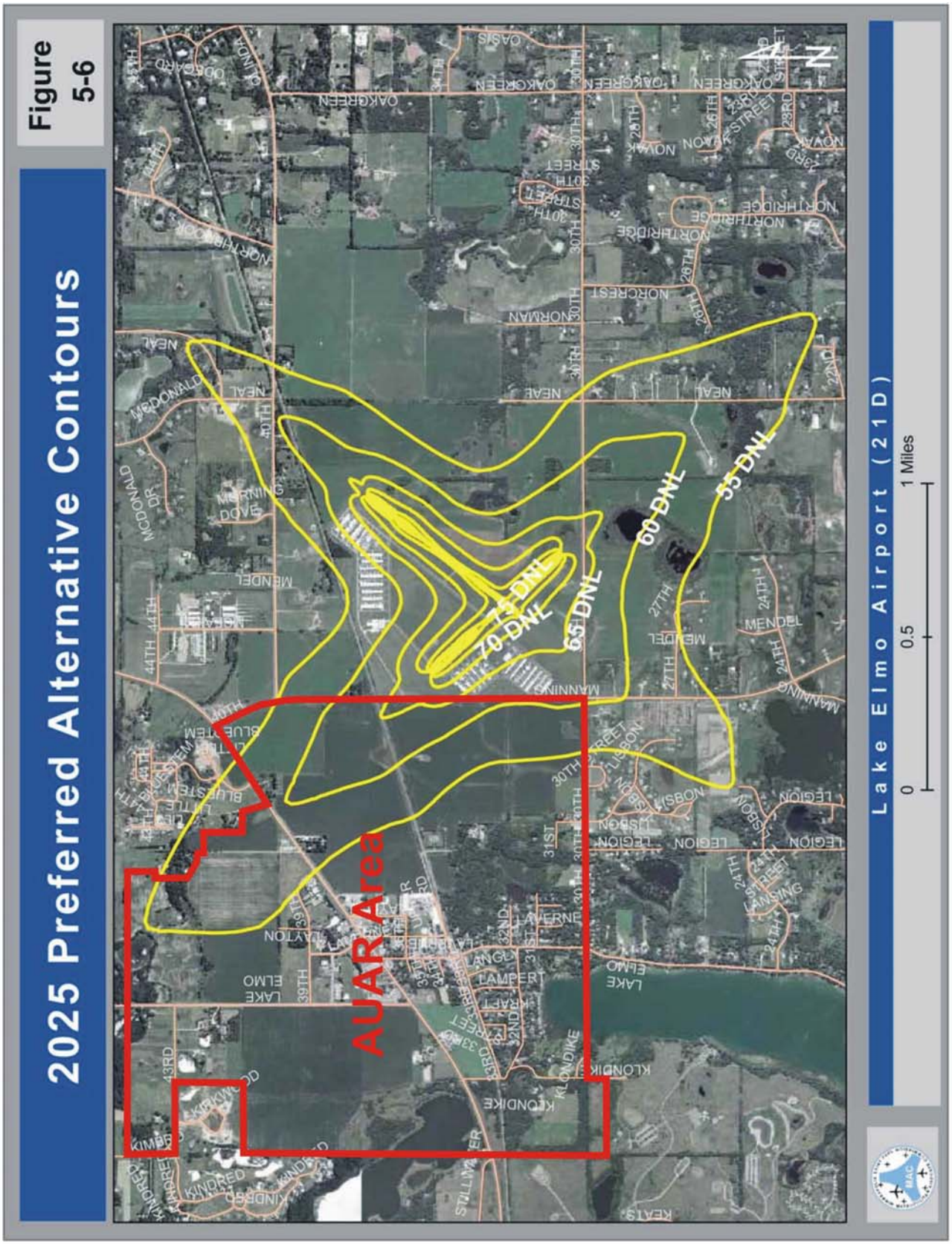
Figure 24-1 Aircraft Noise Contours



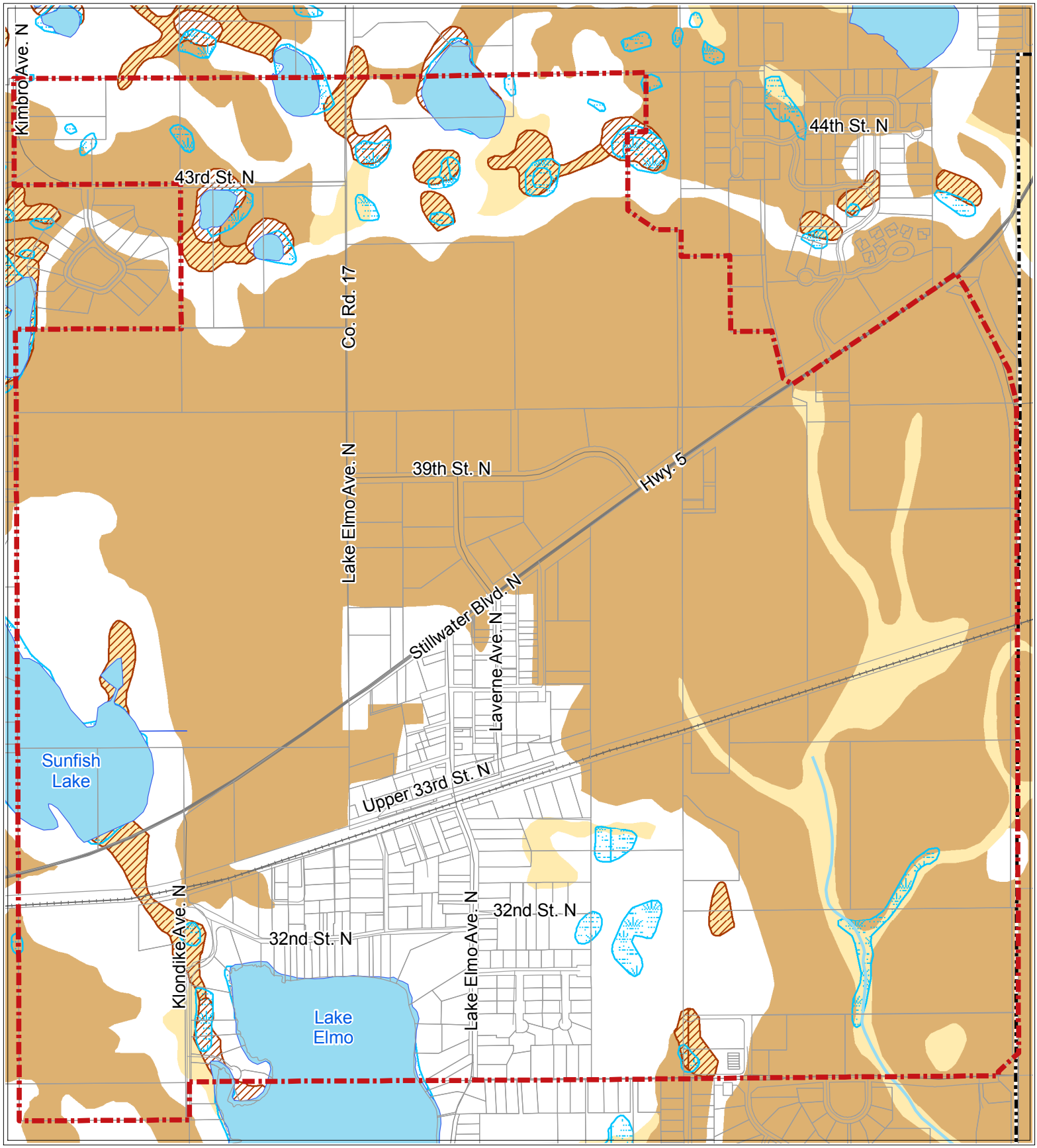


Figure 25-1
Prime Agricultural Soils
Lake Elmo AUAR

N

500 0 500 Feet

AUAR Boundary
Municipal Boundary
Open Water
NWI Wetland
Hydric Soil
Prime Agricultural Soil
Prime Agricultural Soil When Drained

Bonestroo

June 22, 2007
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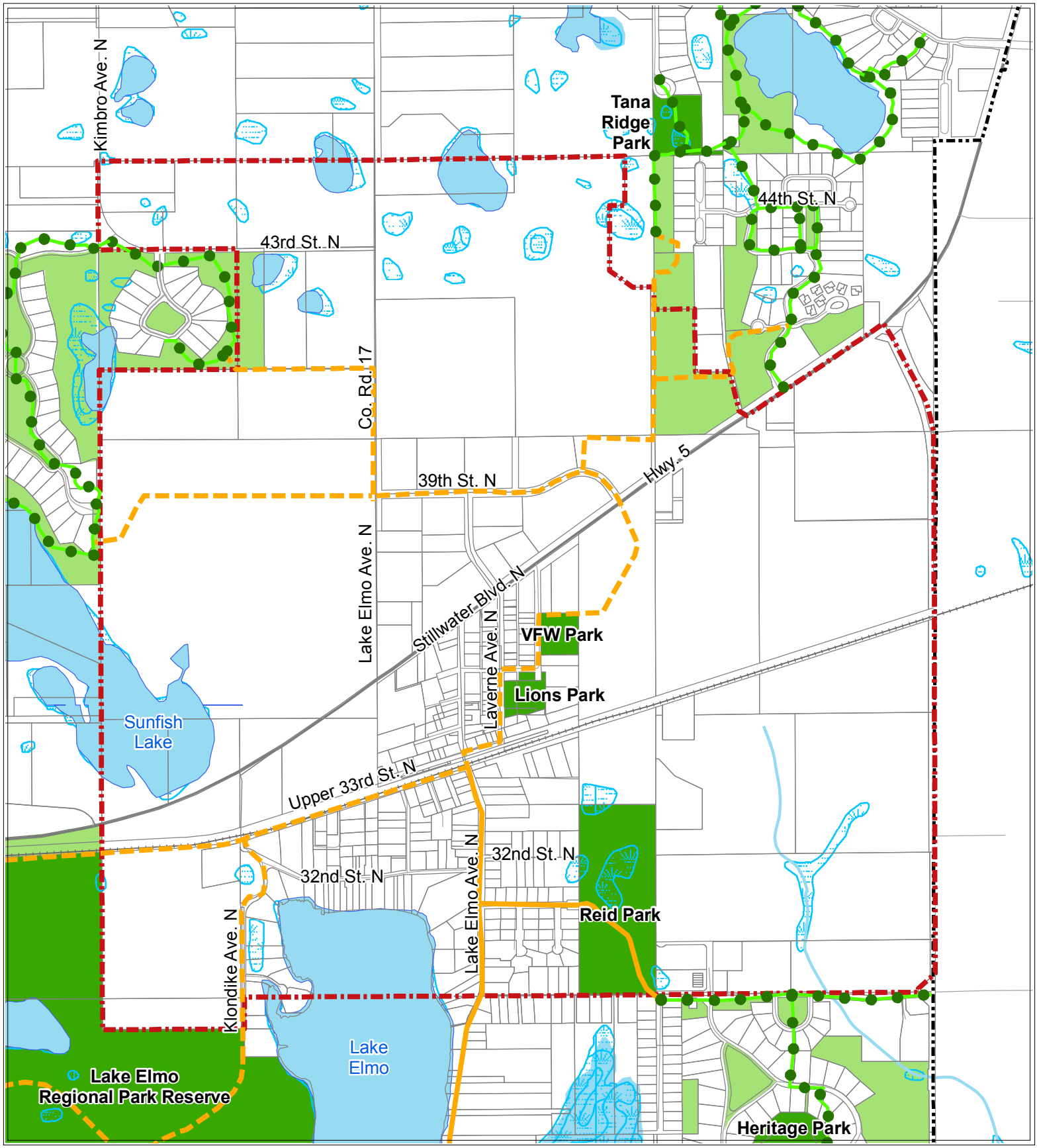


Figure 25-2
Existing Parks and Trails
Lake Elmo AUAR

N

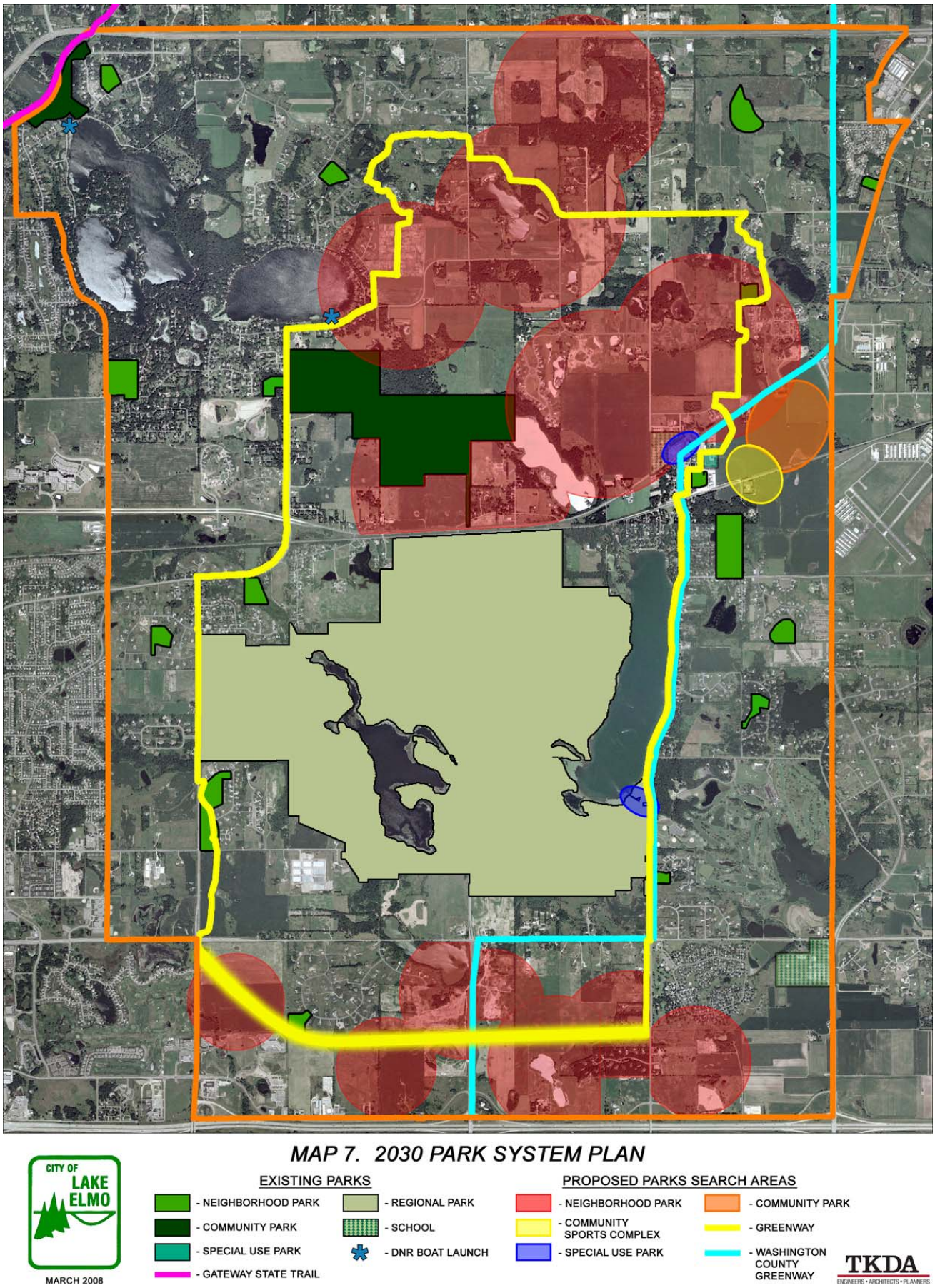
600 0 600 1,200 Feet

AUAR Boundary
Municipal Boundary
Park
Open Space
Open Water
NWI Wetland
Existing Trails
Proposed Off-Road Trails
Proposed On-Road Trails

Bonestroo

October 22, 2008
I:/38/3806001/gis/avprojects/park n trail.mxd

Figure 25-3 2030 Park System Plan



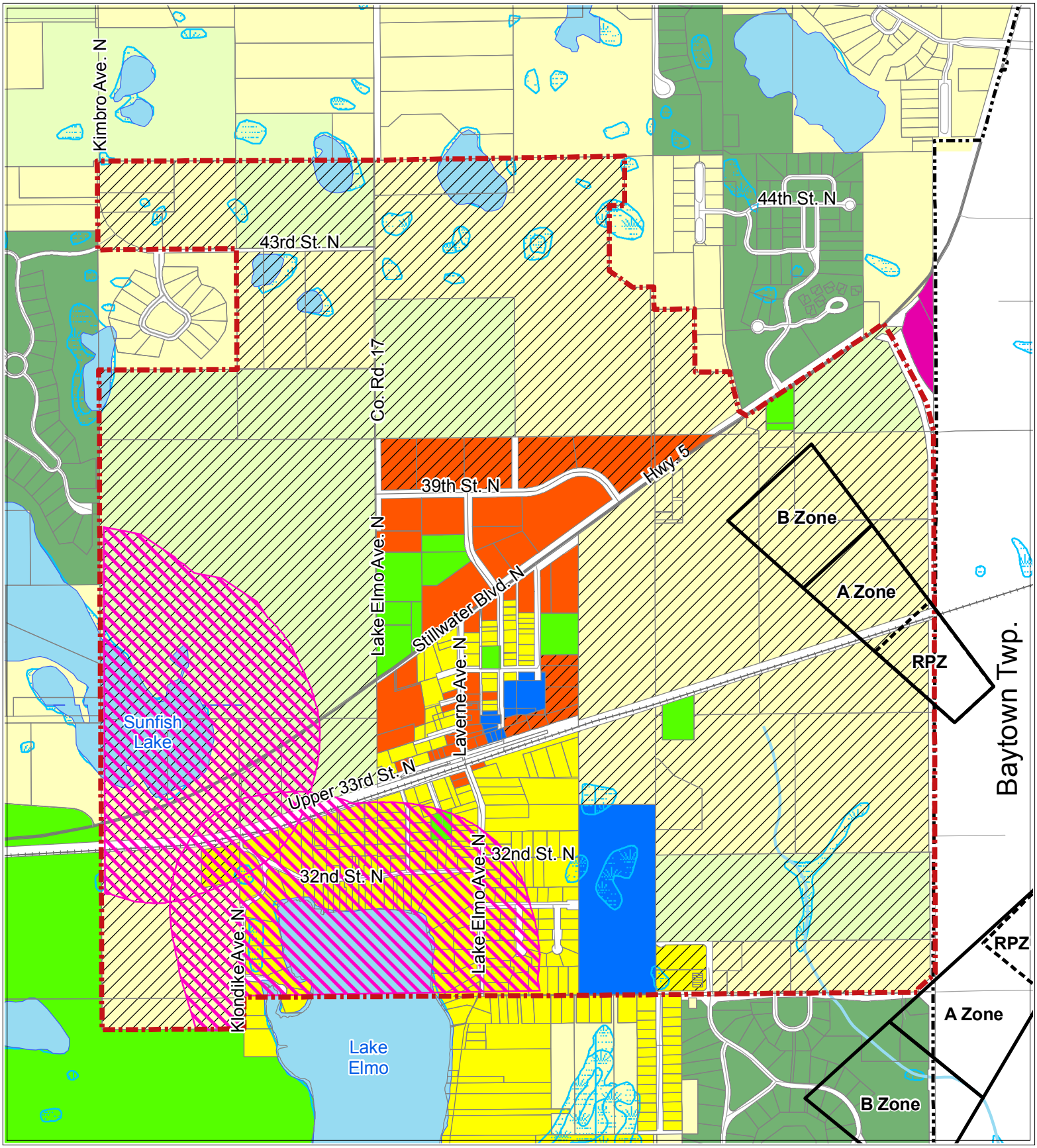


Figure 27-1
Current Zoning Districts
Lake Elmo AUAR

N

600 0 600 Feet

- AUAR Boundary
- Municipal Boundary
- AG - Agricultural District
- VR-A - Village Residence-Agricultural District
- OP - Open Space Preservation District
- RR - Rural Residential District
- VR-RR - Village Residence-Rural Residential District
- R1 - One Family Residential District
- Airport RPZs
- Airport State Safety Zones
- Shoreland Zone
- VR-R1 - Village Residence-One Family Residential District
- HB - Highway Business District
- GB - General Business District
- VR-GB - Village Residence-General Business District
- P - Public Parks and Open Space District
- PF - Public Facilities and Quasi-Public Uses District
- Open Water
- NWI Wetland

Disclaimer: A Joint Airport Zoning Board will be established to determine the future state safety zones. The final safety zones may change based upon what the zoning board adopts.

Bonestroo

June 10, 2008
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