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Appendix A: Figures

Project 1007 Feasibility Study
Minnesota Pollution Control Agency

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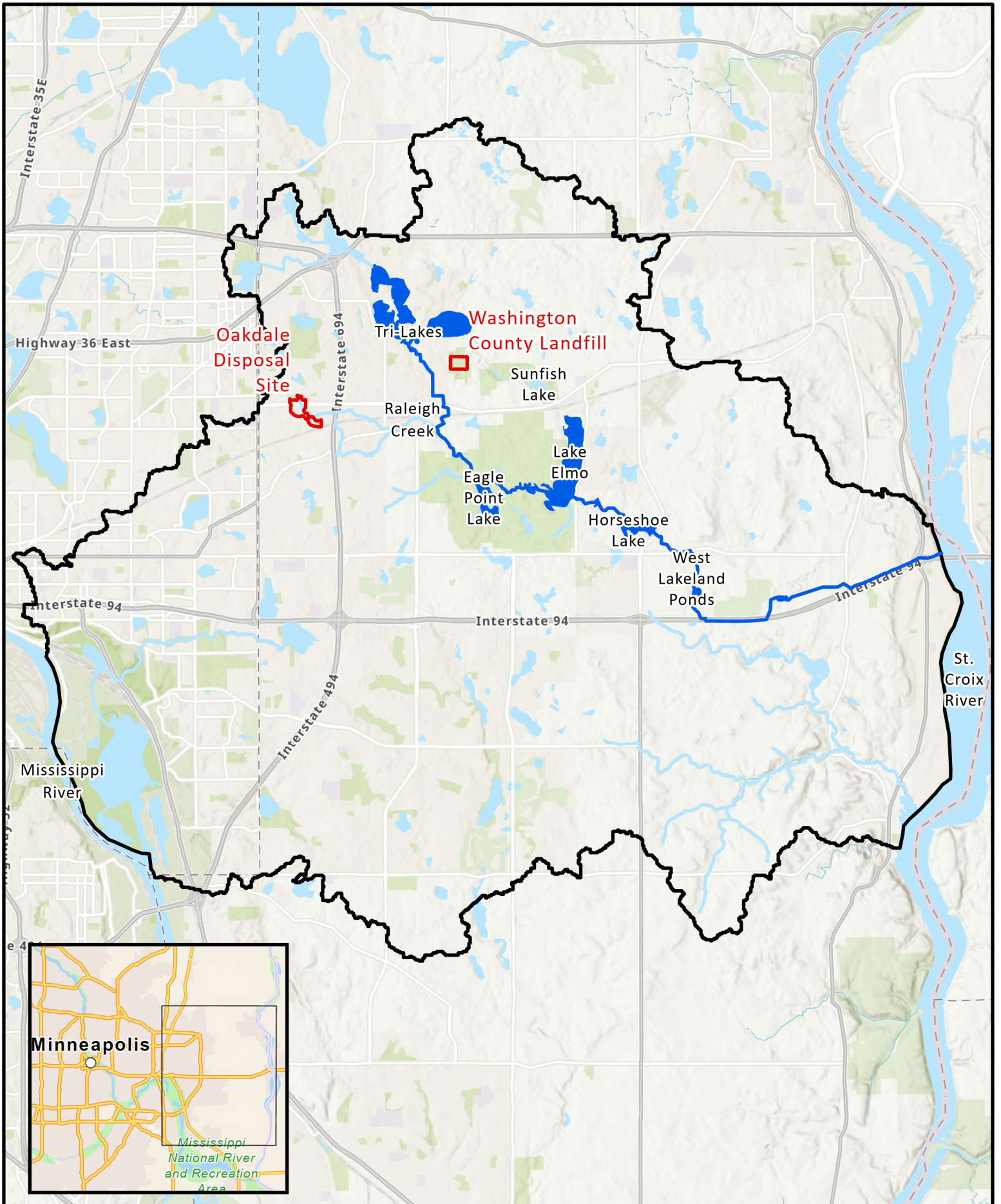
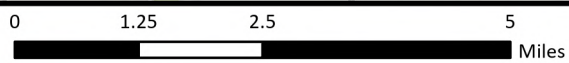


Figure 1: Project 1007 Site Overview



- ▭ Source Area
- Site Boundary
- ▬ Project 1007 Conveyance System



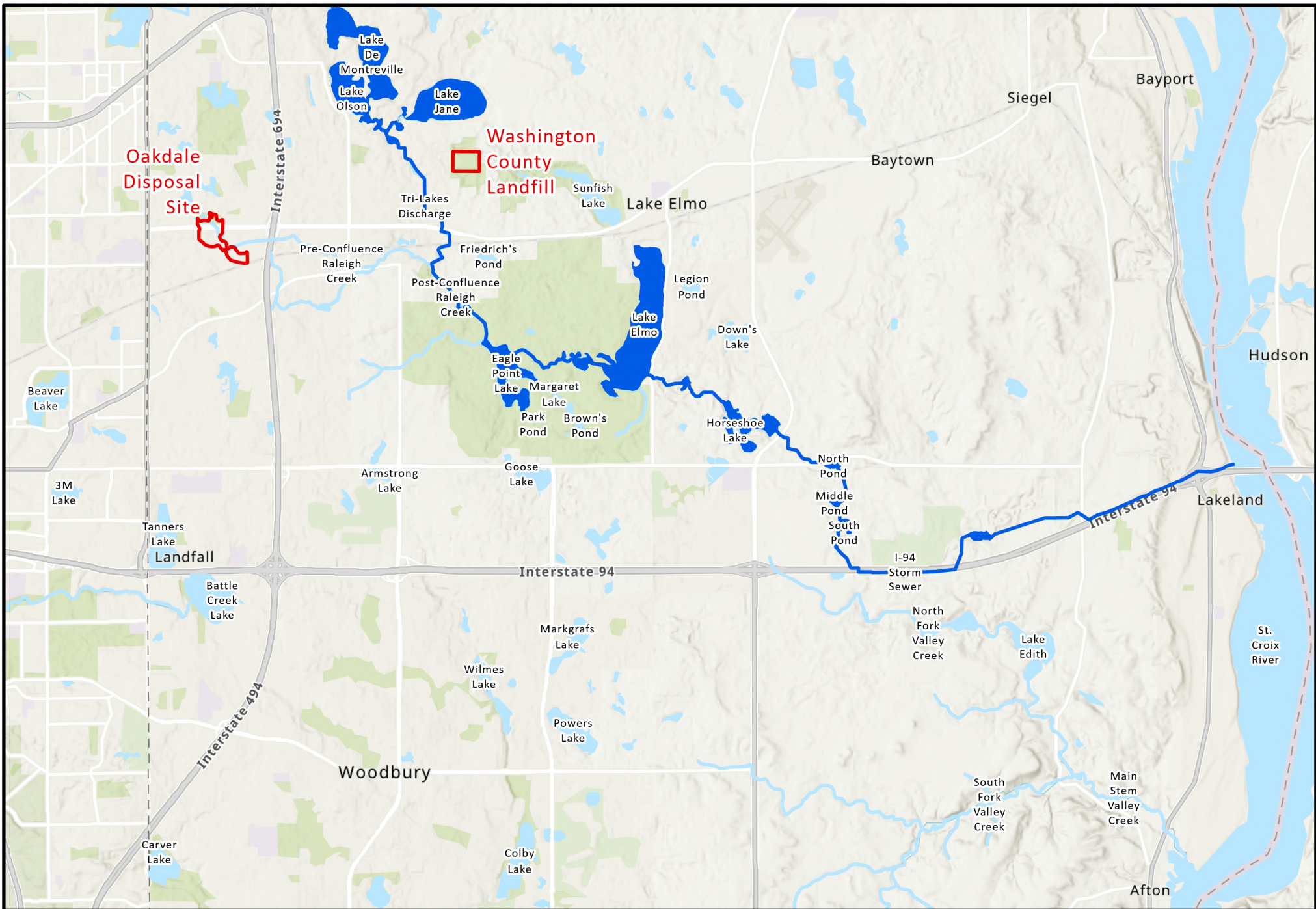


Figure 2: Project 1007 Conveyance System and Sited Surface Water Bodies
Project 1007 Feasibility Study

- Source Area
- Site Boundary
- Project 1007 Conveyance System

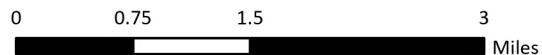
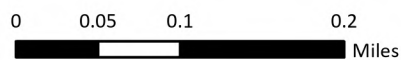




Figure 3: Oakdale Disposal Site

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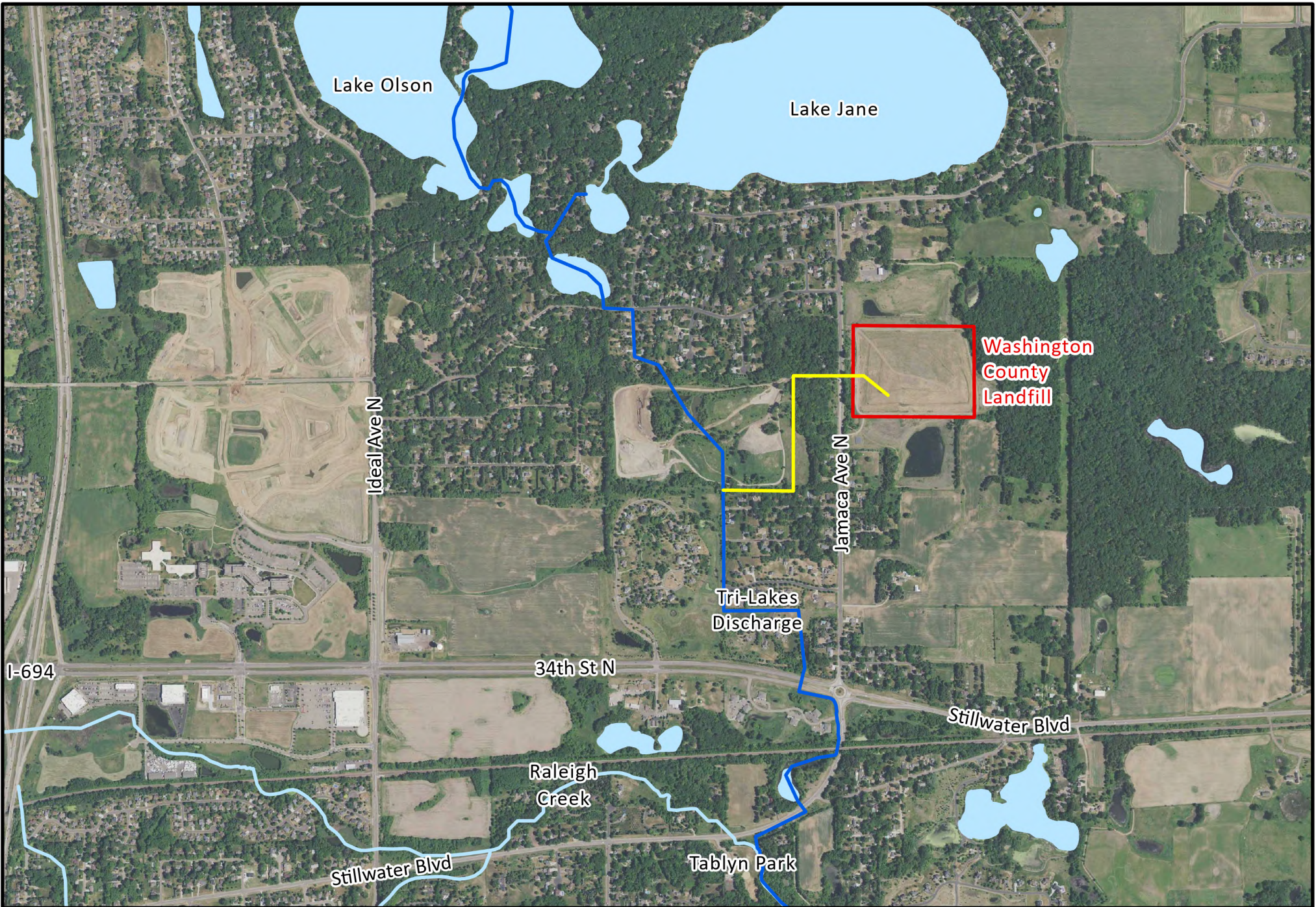


Figure 4: Washington County Landfill

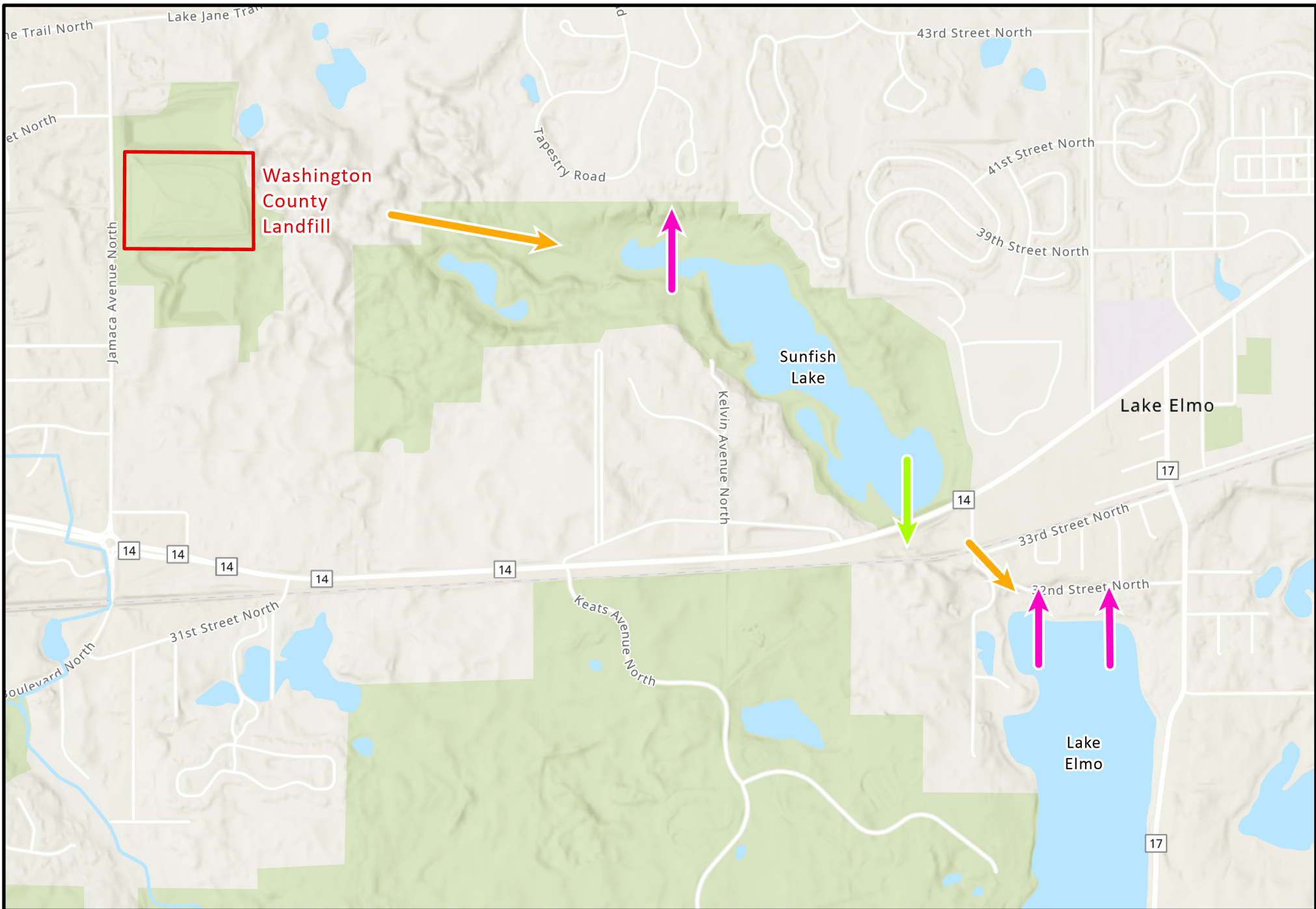



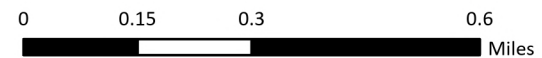


Figure 5: Surface Water and Groundwater Interactions Sunfish Lake Area
Project 1007 Feasibility Study

-  Surface Water / Overland Flow Infiltration
-  Groundwater Discharge
-  Shallow Groundwater Flow



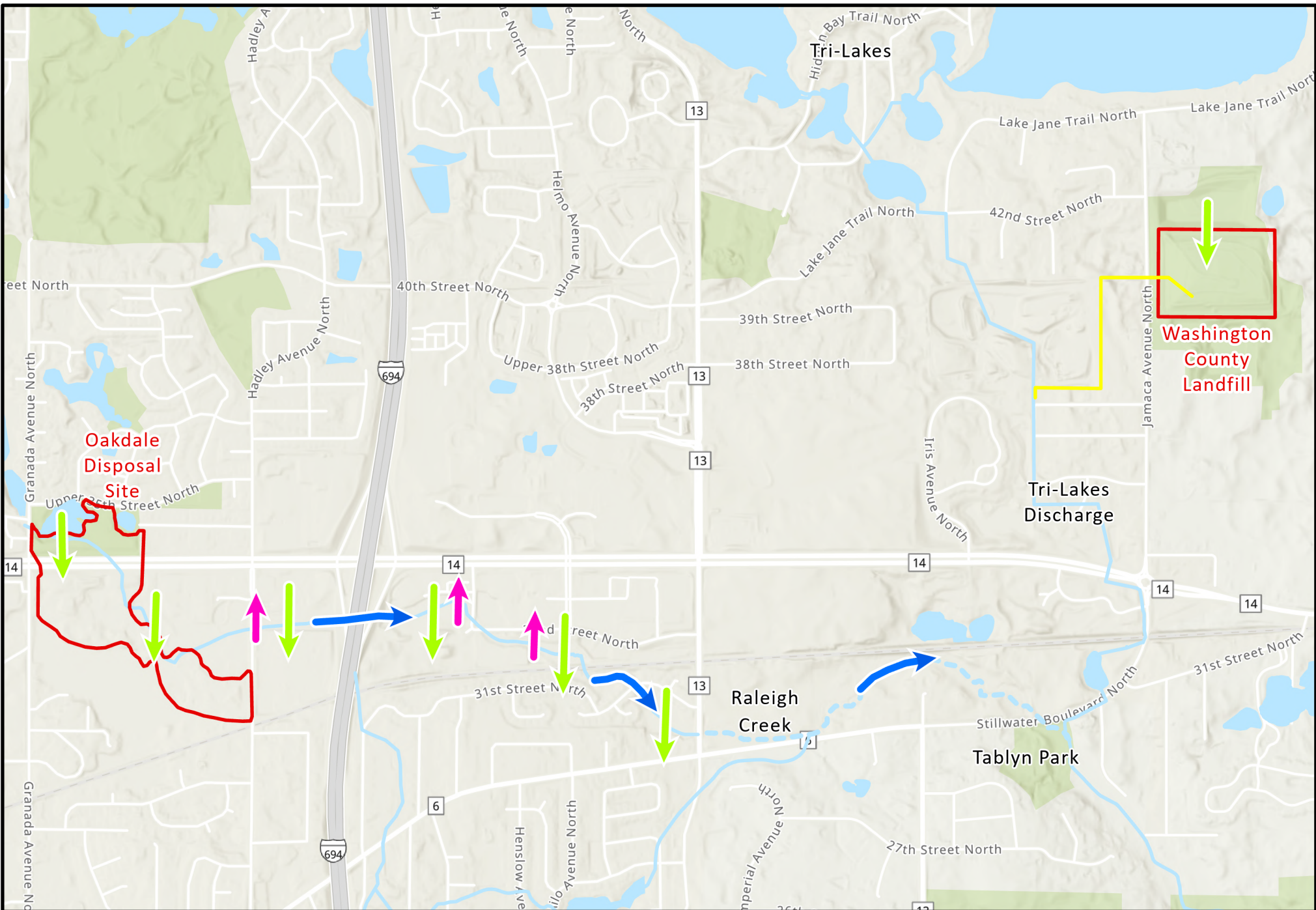





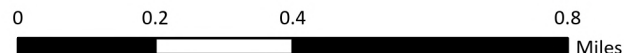


Figure 6: Raleigh Creek Surface Water

Features
Project 1007 Feasibility Study



-  Groundwater Discharge
-  Surface Water Flow
-  Surface Water / Overland Flow Infiltration
-  Historical WCL Connection
-  Intermittent Surface Water Flow



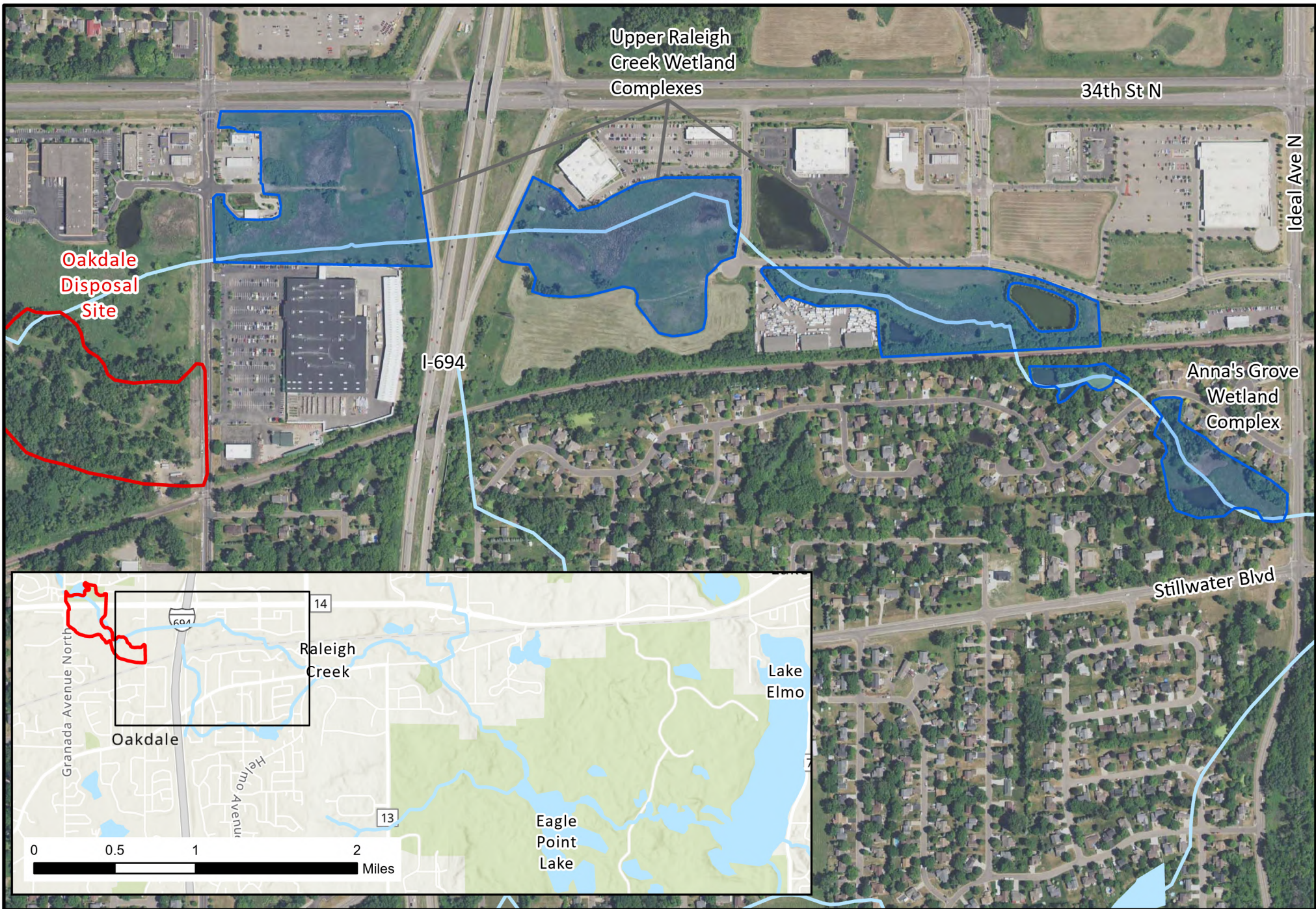


Figure 7: Wetland Complex Delineation

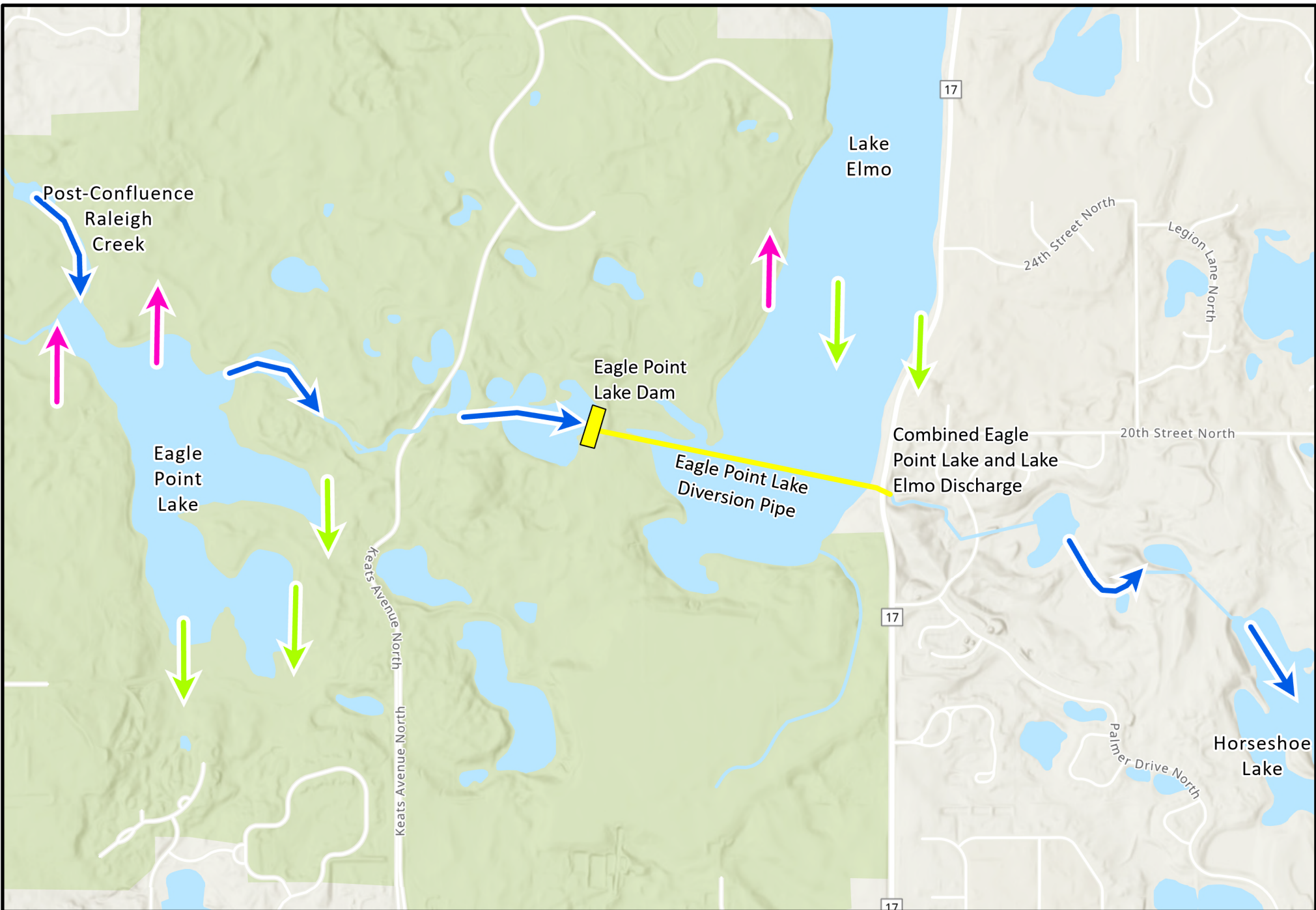



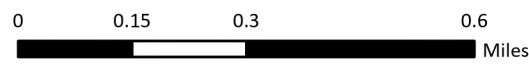


Figure 8: Eagle Point Lake Surface Water Features
Project 1007 Feasibility Study

-  Surface Water Flow
-  Surface Water / Overland Flow Infiltration
-  Groundwater Discharge



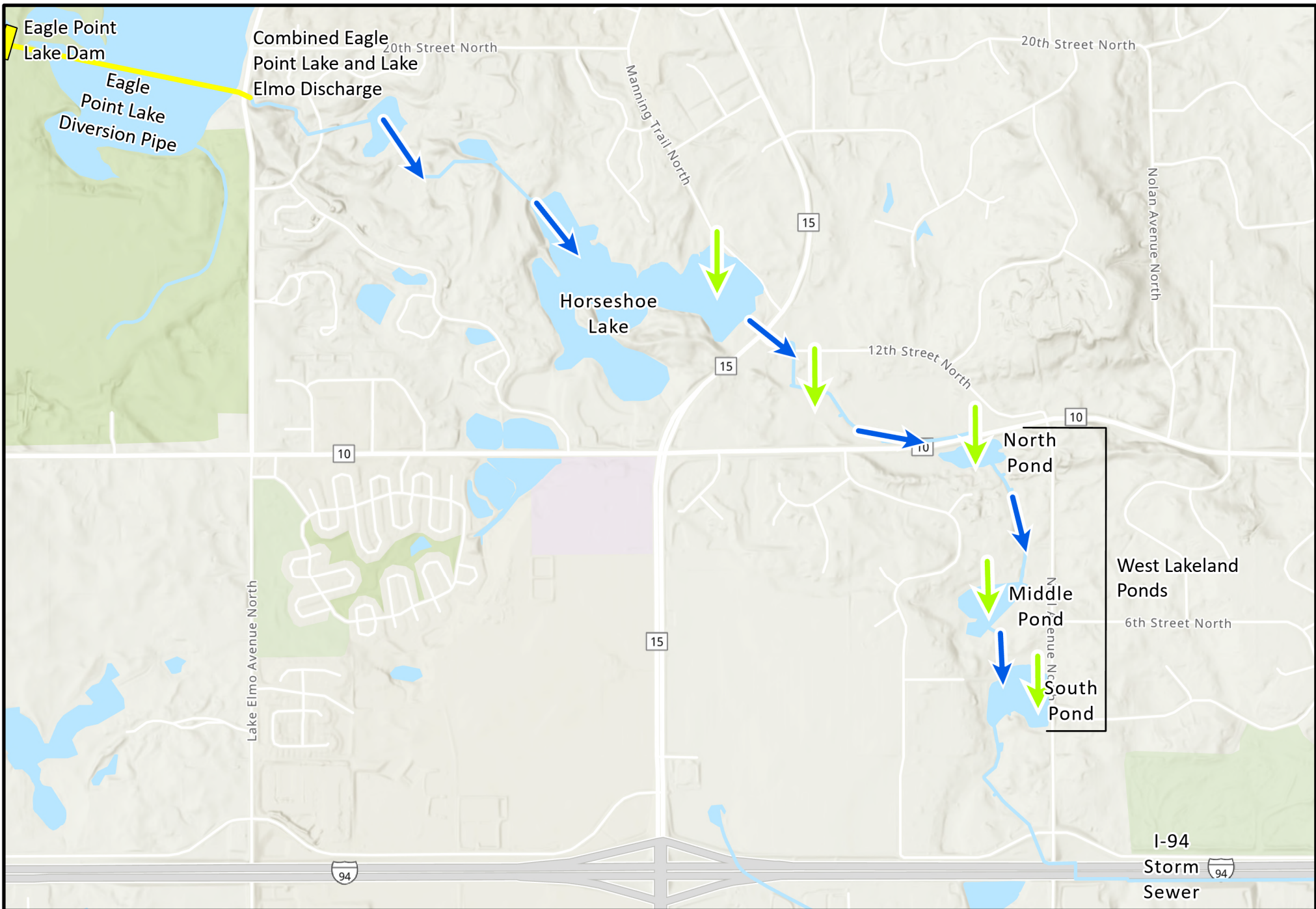


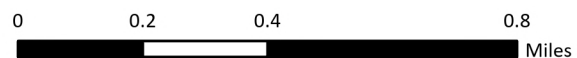


Figure 9: Horseshoe Lake and West Lakeland Surface Water Features
Project 1007 Feasibility Study

-  Surface Water / Overland Flow Infiltration
-  Surface Flow



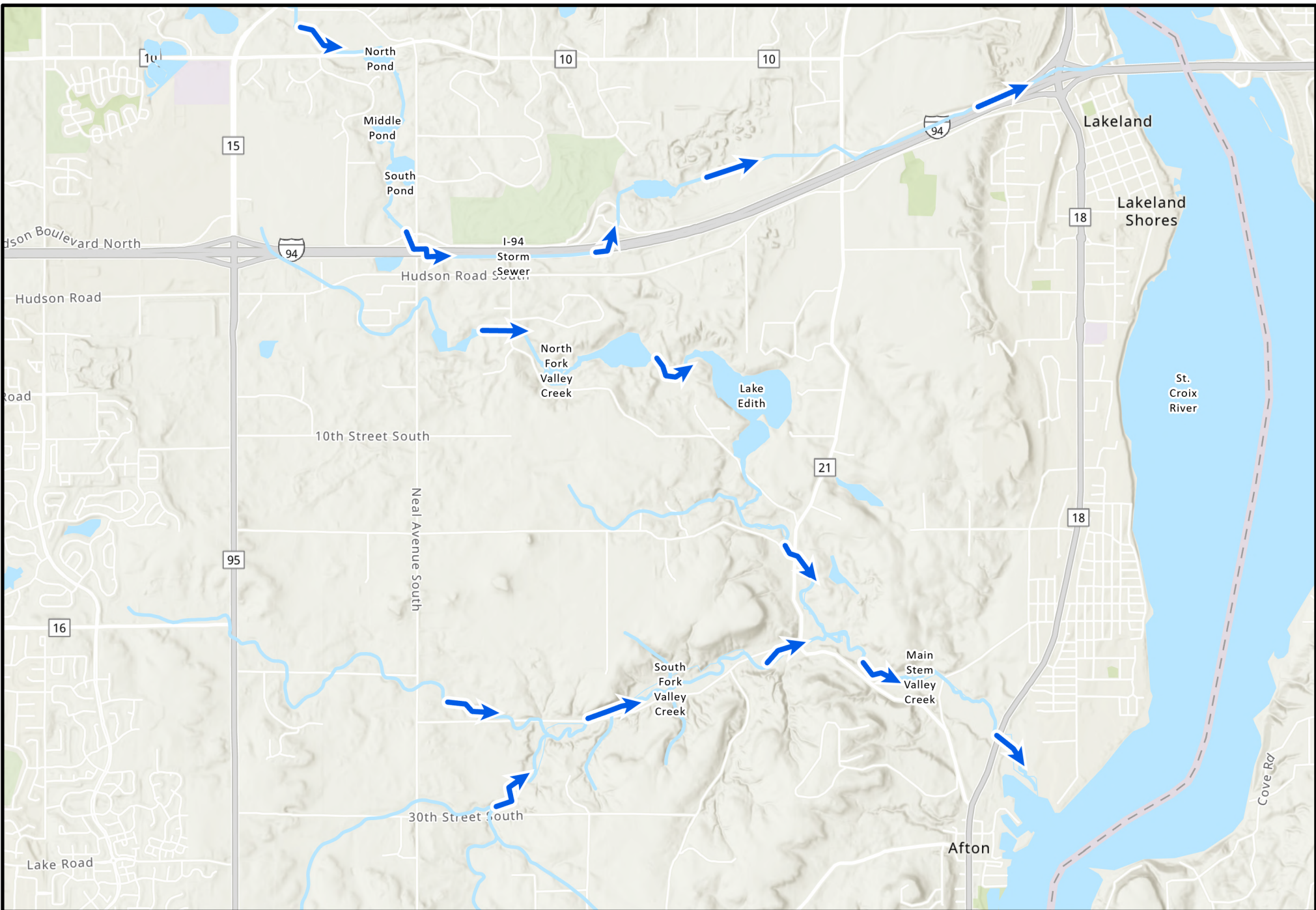

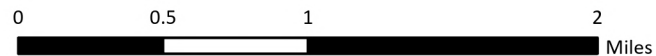


Figure 10: Valley Branch Creek System and Lake Edith
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 Surface Water Flow



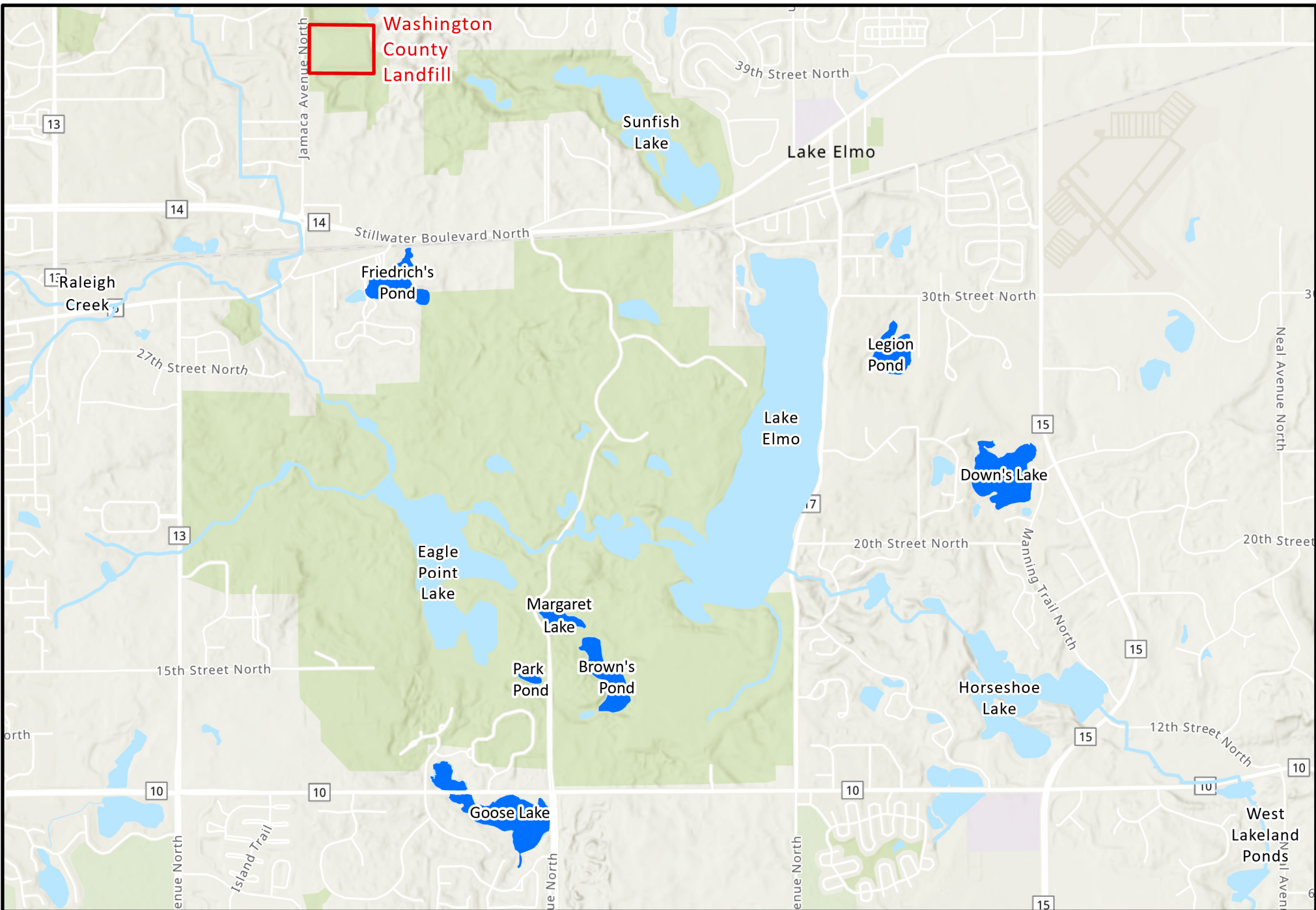


Figure 11: Perched Water Bodies

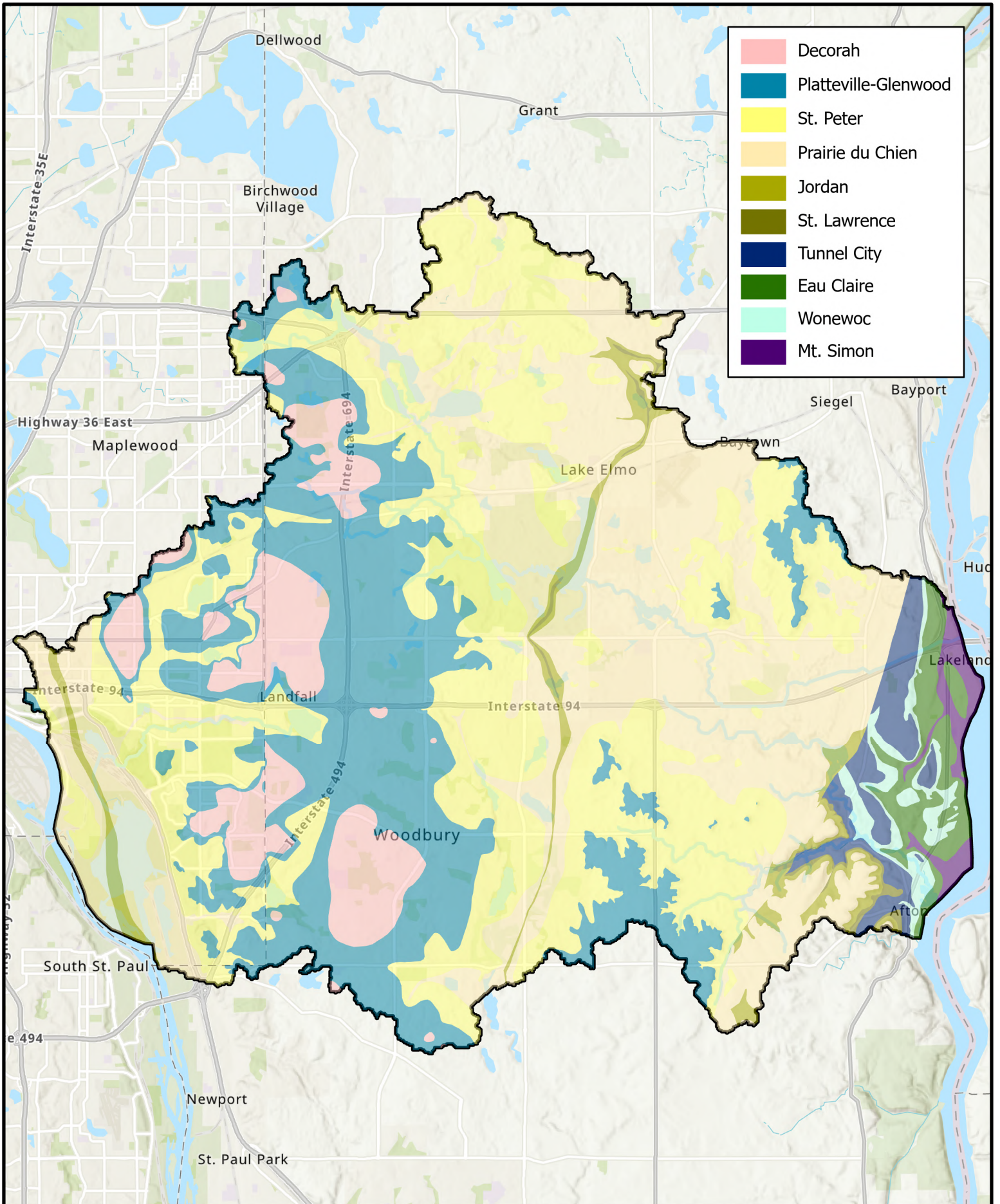
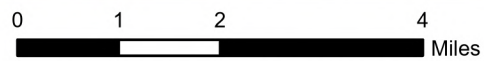


Figure 12: First Encountered Bedrock



Data courtesy of the Minnesota Geological Society (2016)

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Note: Slight misalignment at Ramsey-Washington County boundary is due to county-level data availability



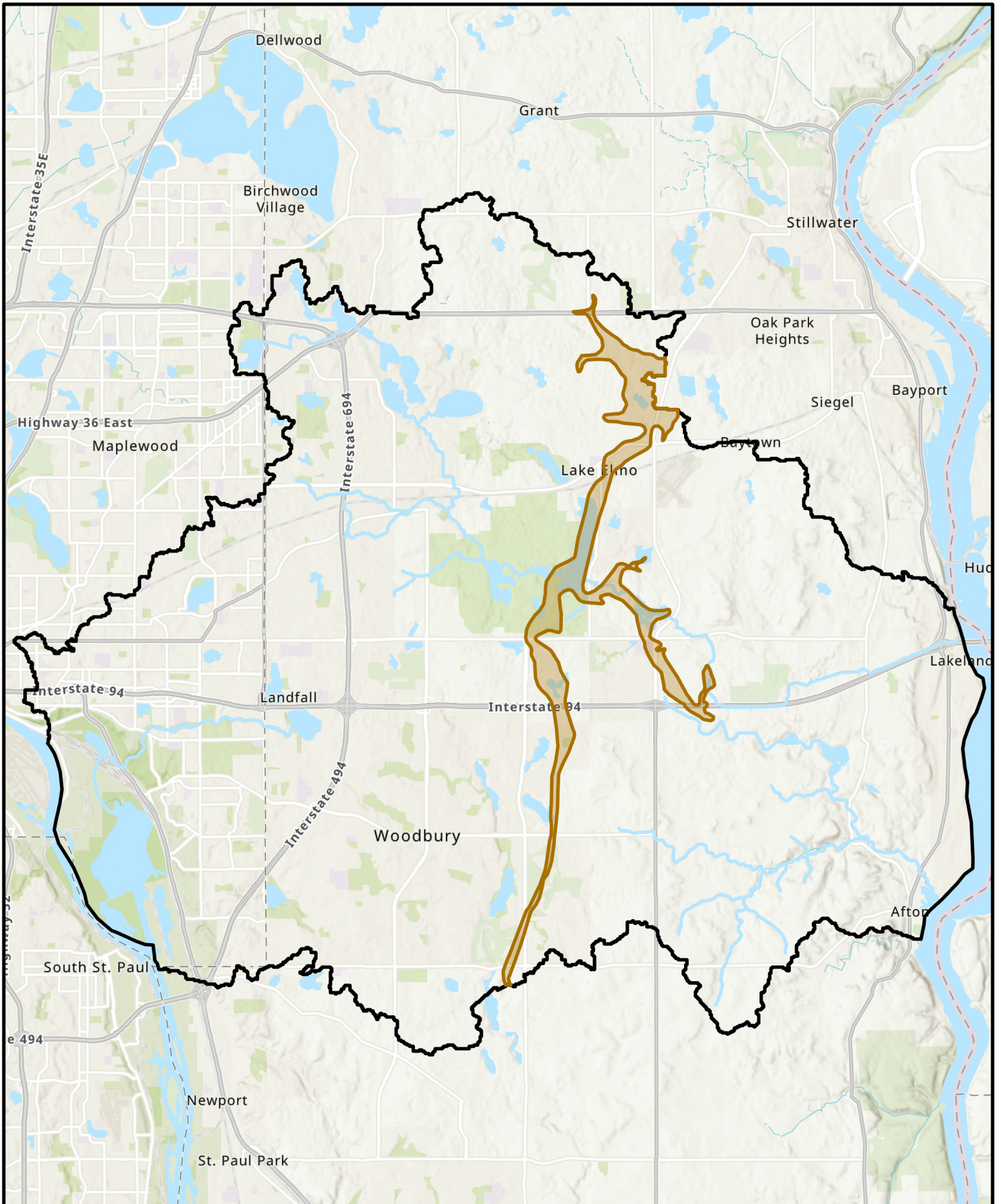
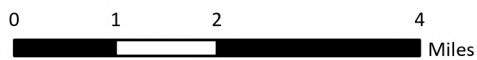


Figure 13: Extent of Mapped Bedrock Valley



 Mapped Bedrock Valley



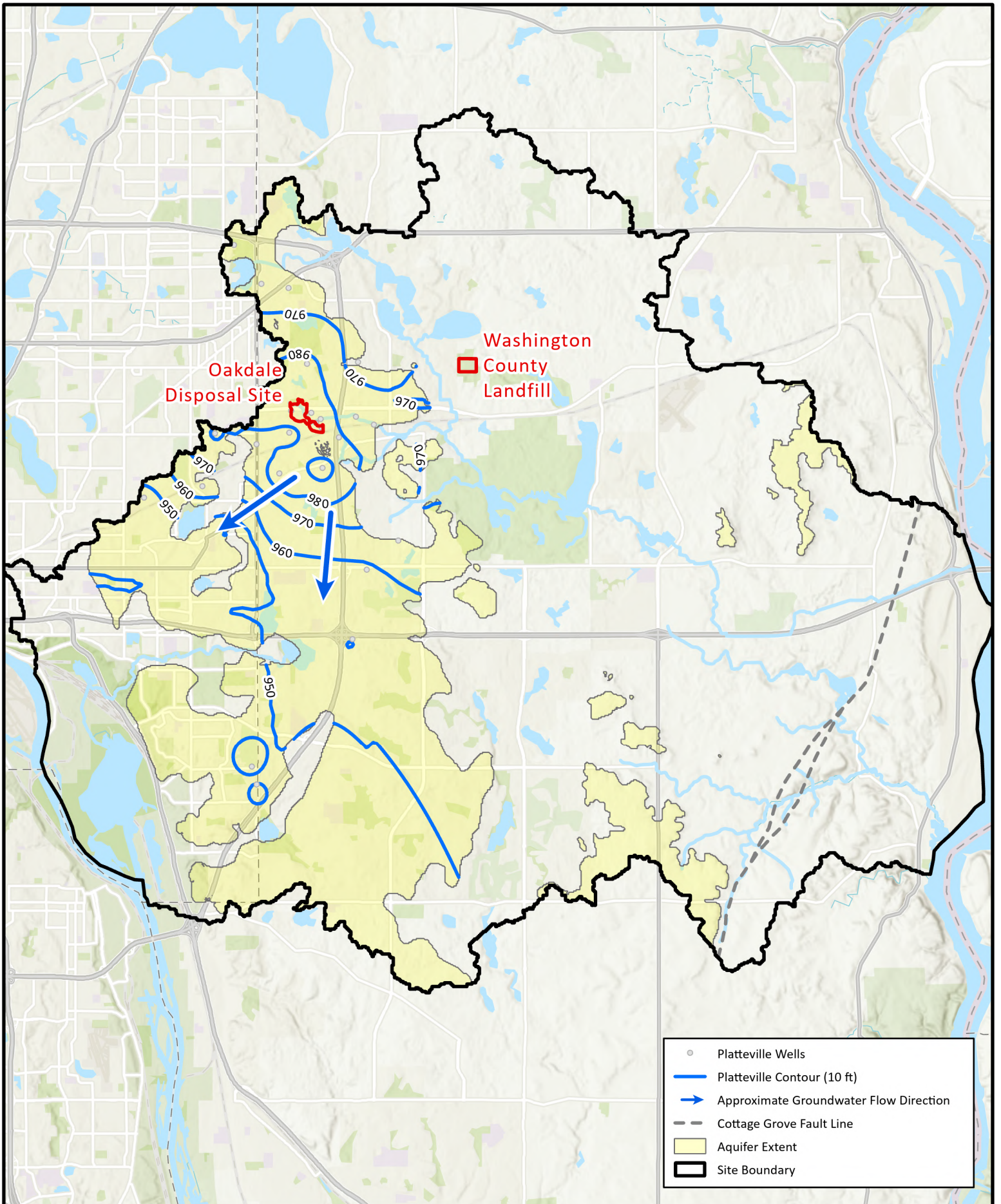
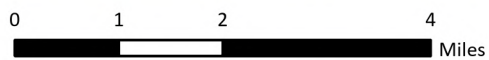


Figure 14: Platteville Aquifer Potentiometric Surface



Notes: Groundwater elevation data are average elevations as collected by AECOM and provided by the Minnesota Department of Health.



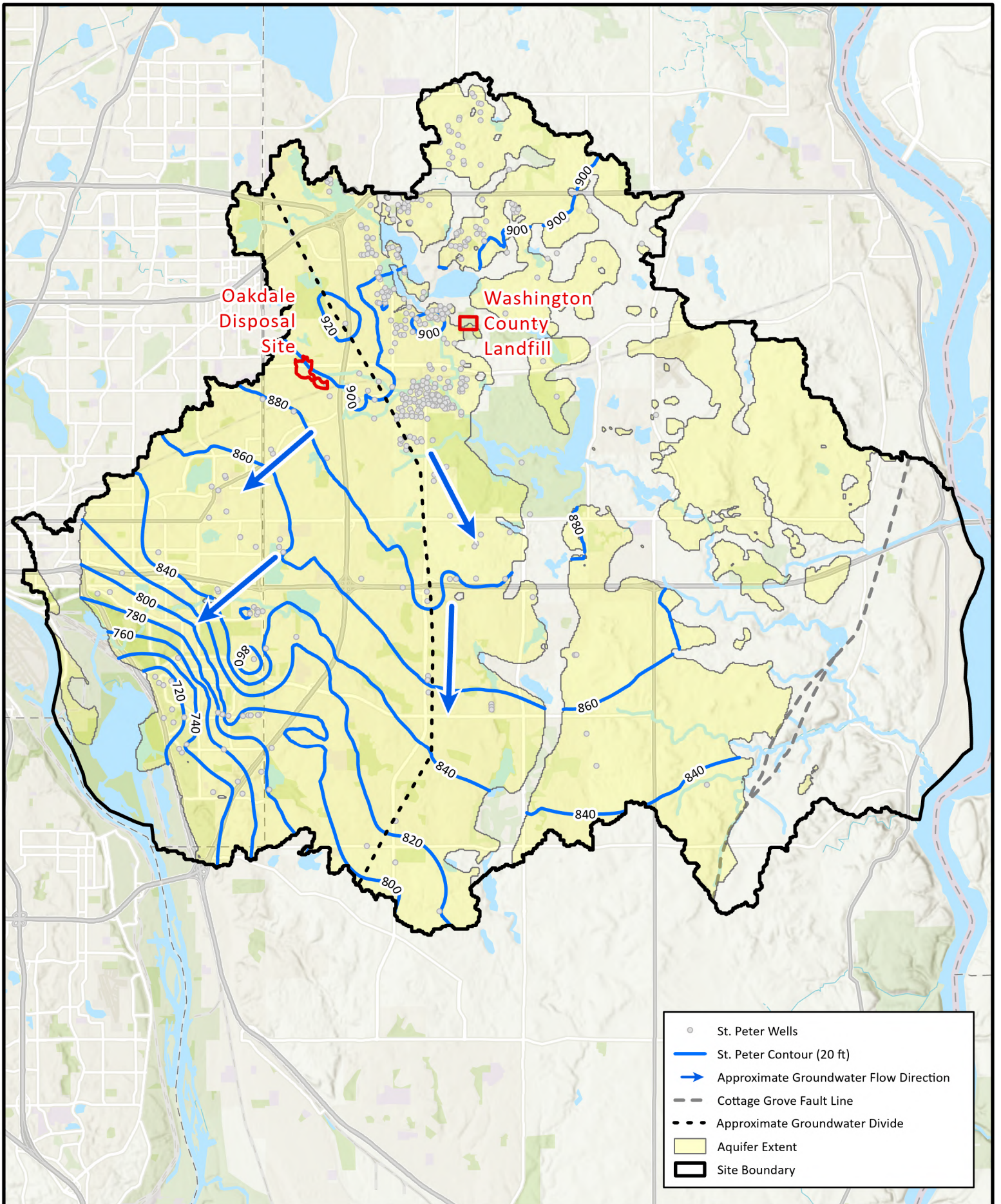
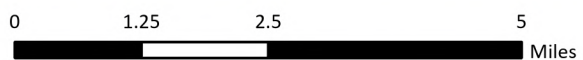


Figure 15: St. Peter Aquifer Potentiometric Surface



Project 1007 Feasibility Study



Notes: Groundwater elevation data are average elevations as collected by AECOM and provided by the Minnesota Department of Health.



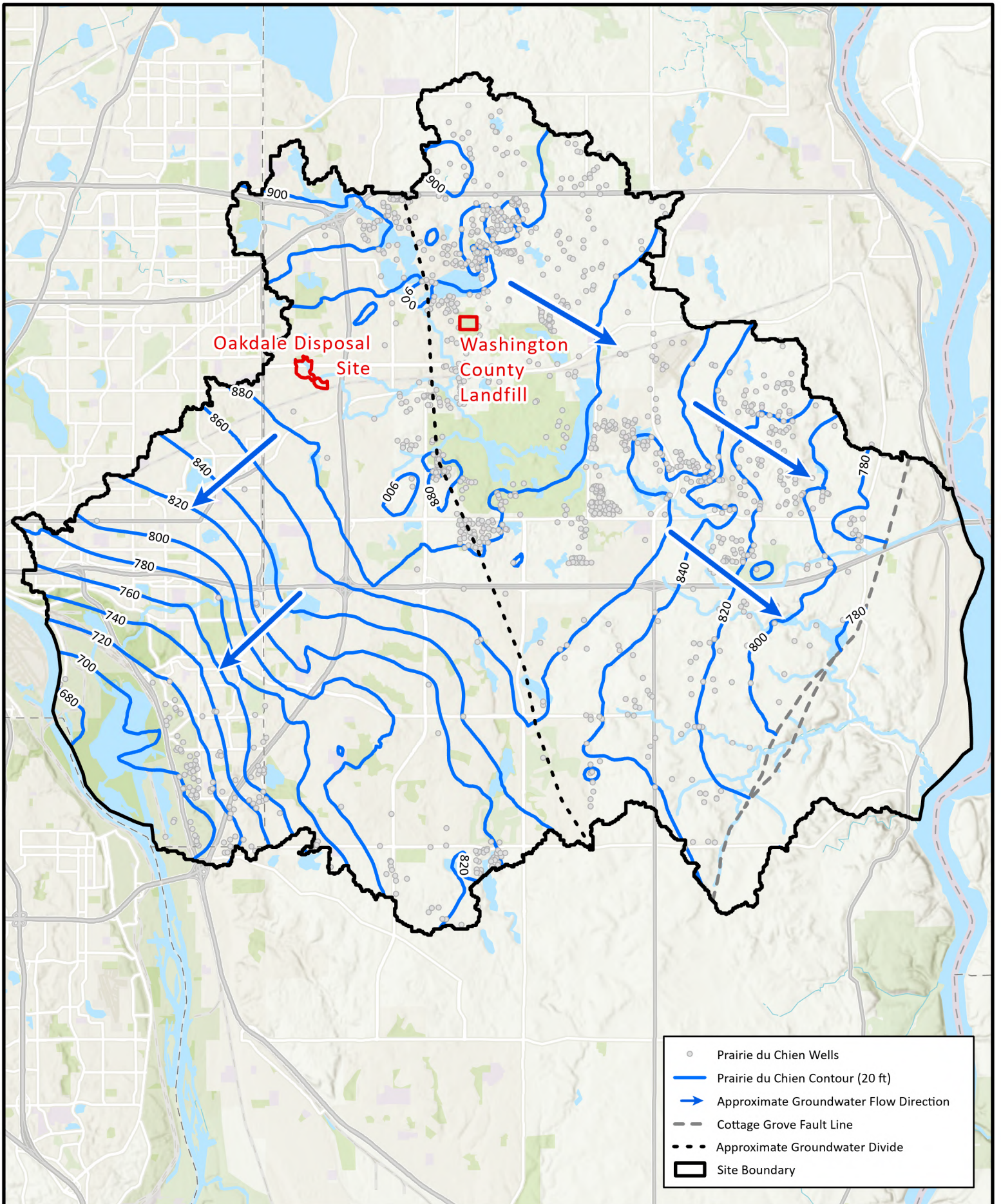
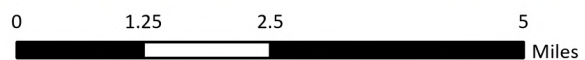


Figure 16: Prairie du Chien Aquifer Potentiometric Surface

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Notes: Groundwater elevation data are average elevations as collected by AECOM and provided by the Minnesota Department of Health.



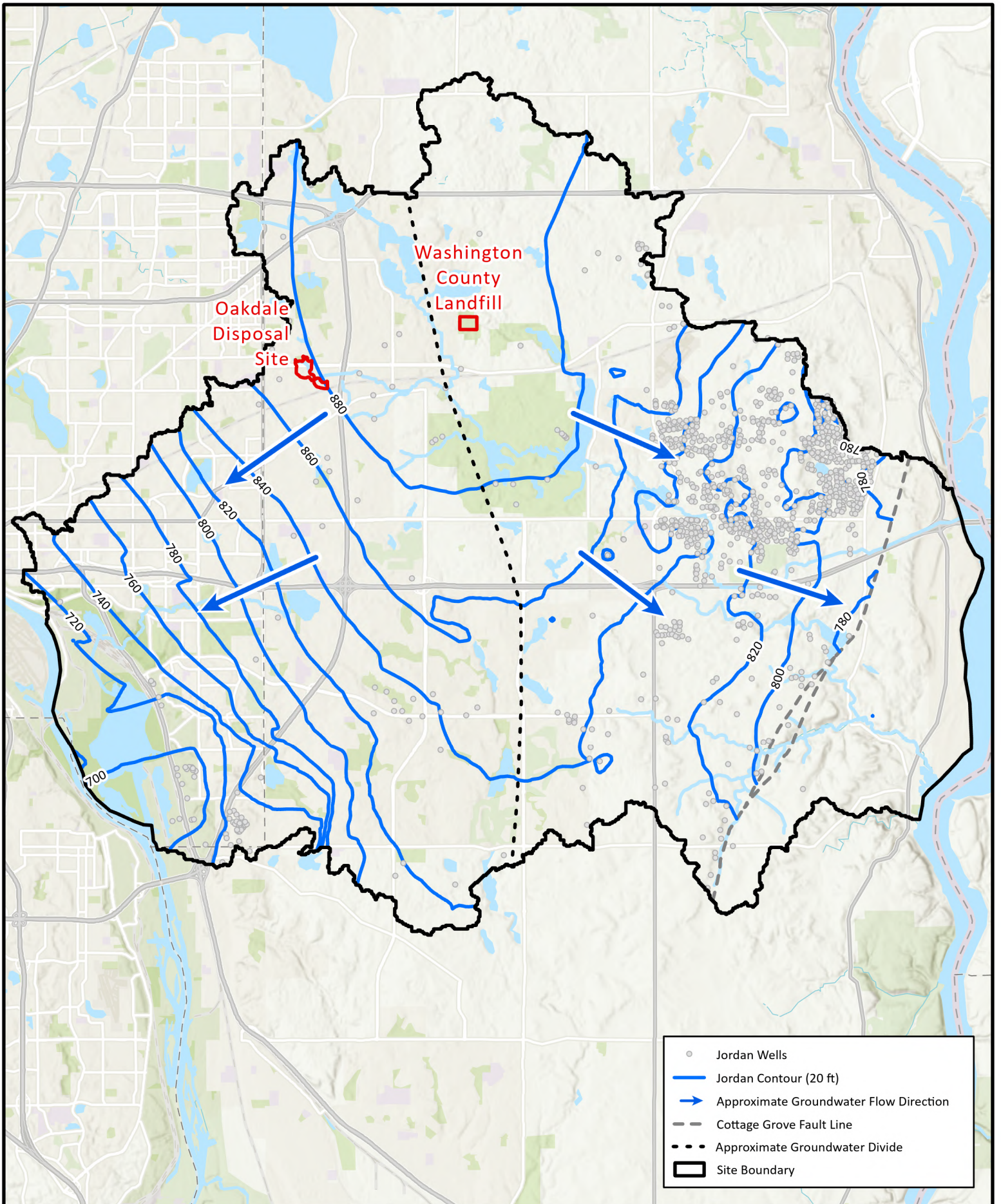
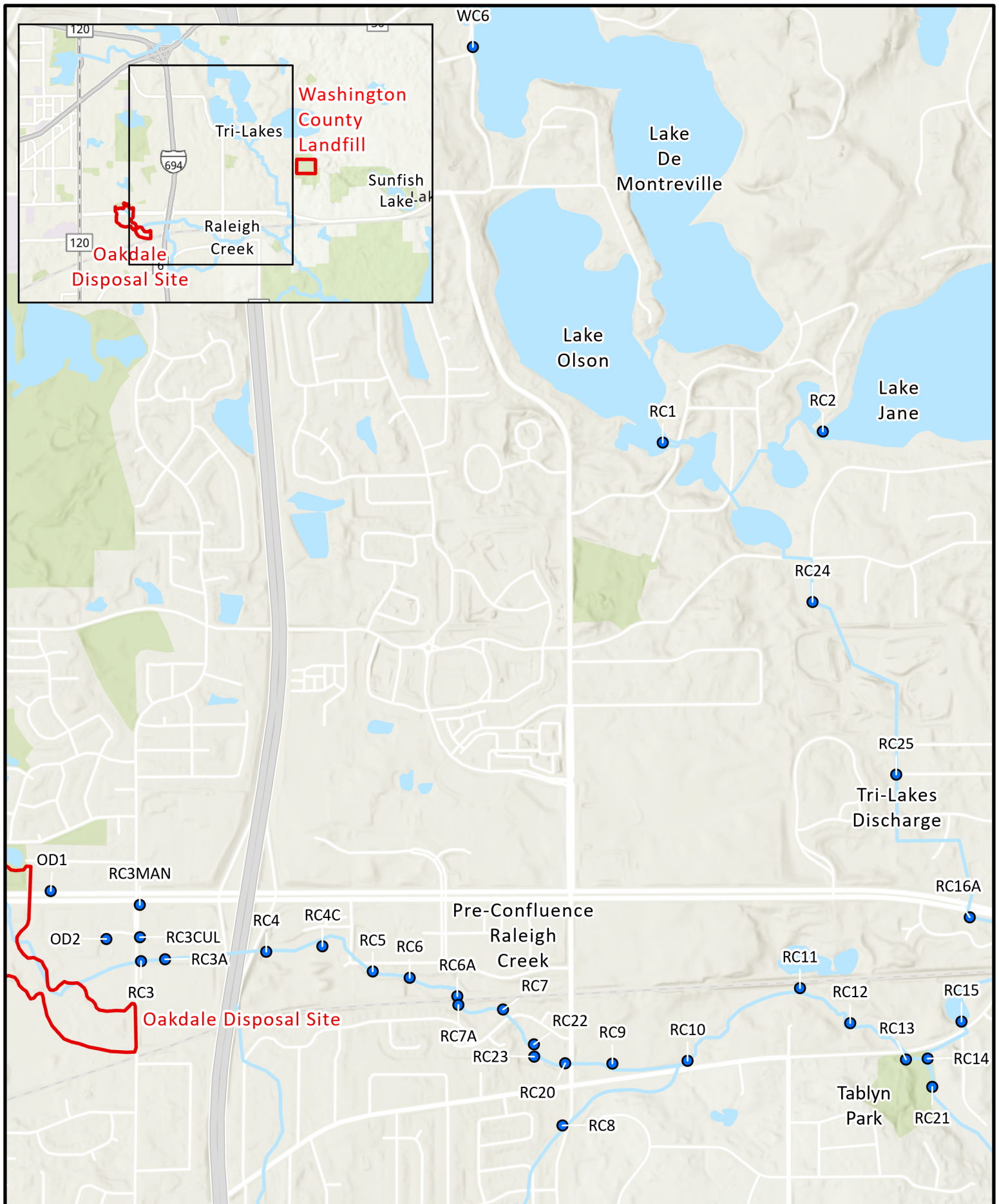
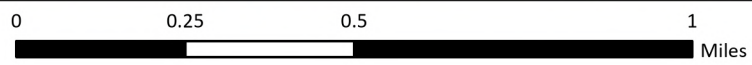


Figure 17: Jordan Aquifer Potentiometric Surface

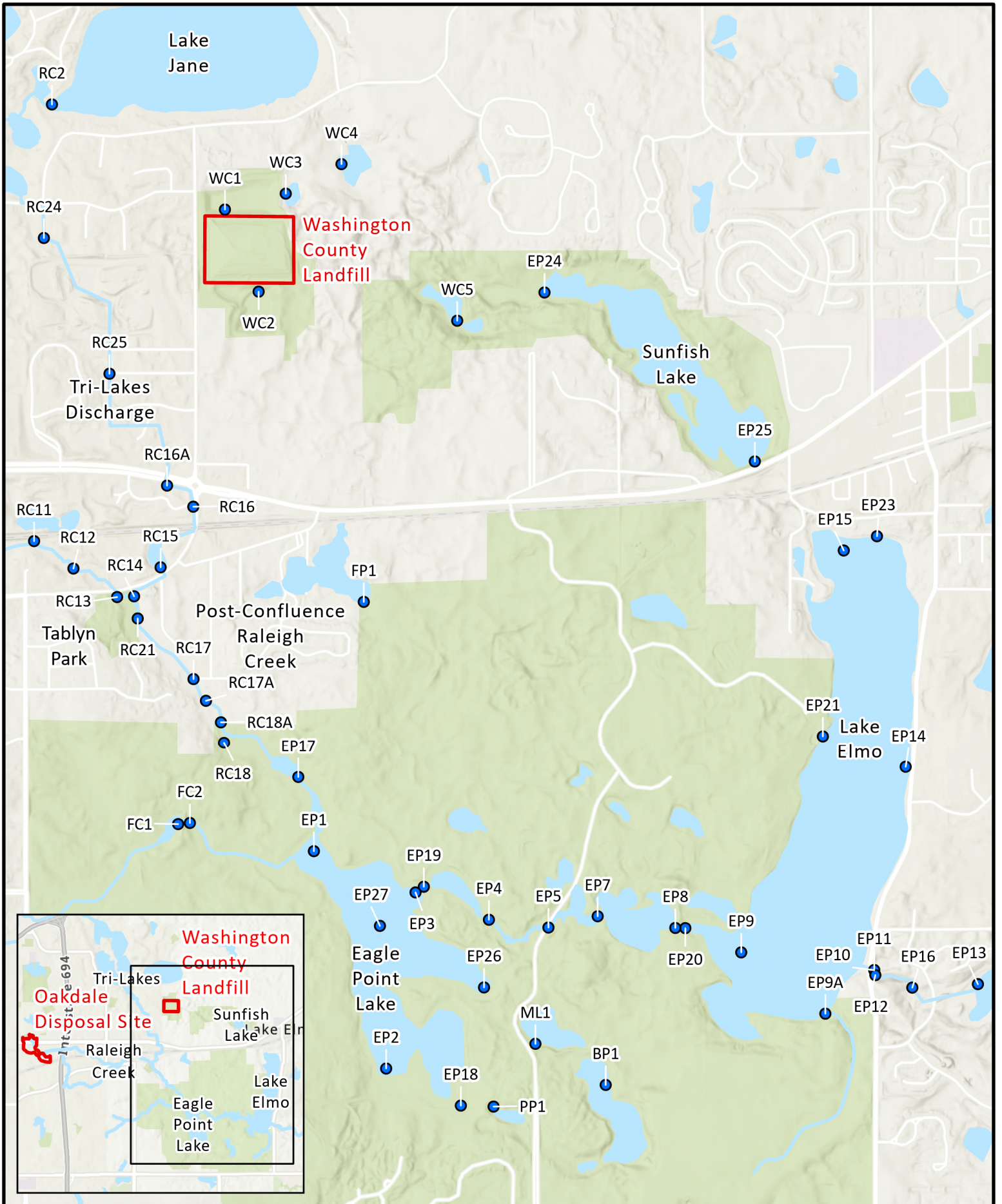


**Figure 18: Surface Water Samples
Western Portion of P1007 Corridor
Project 1007 Feasibility Study**



● Surface Water Sample Location



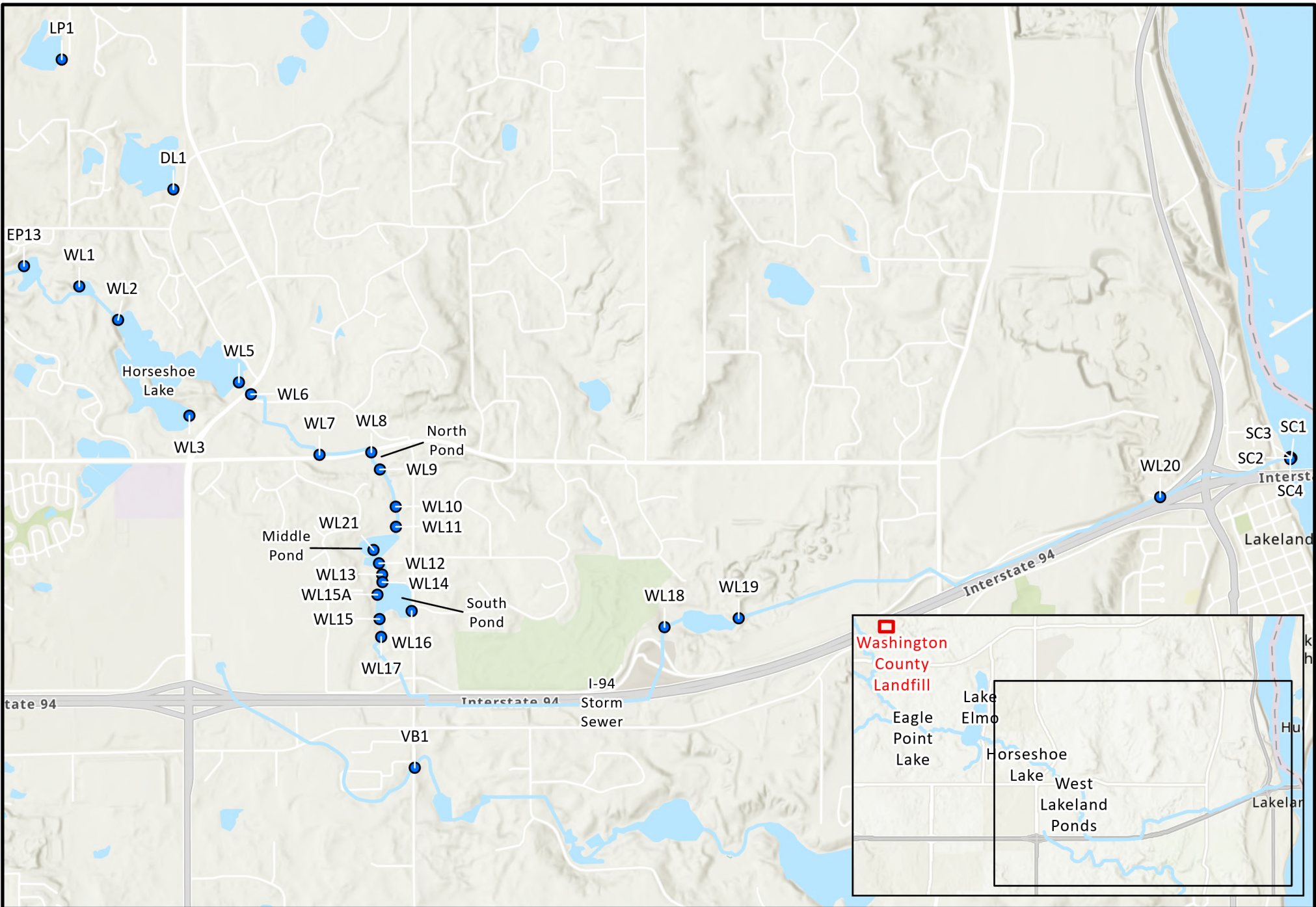


**Figure 19: Surface Water Samples
Central Portion of P1007 Corridor
Project 1007 Feasibility Study**

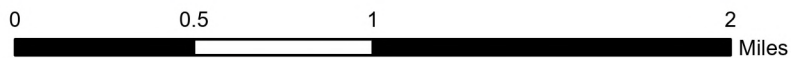
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● Surface Water Sample Location

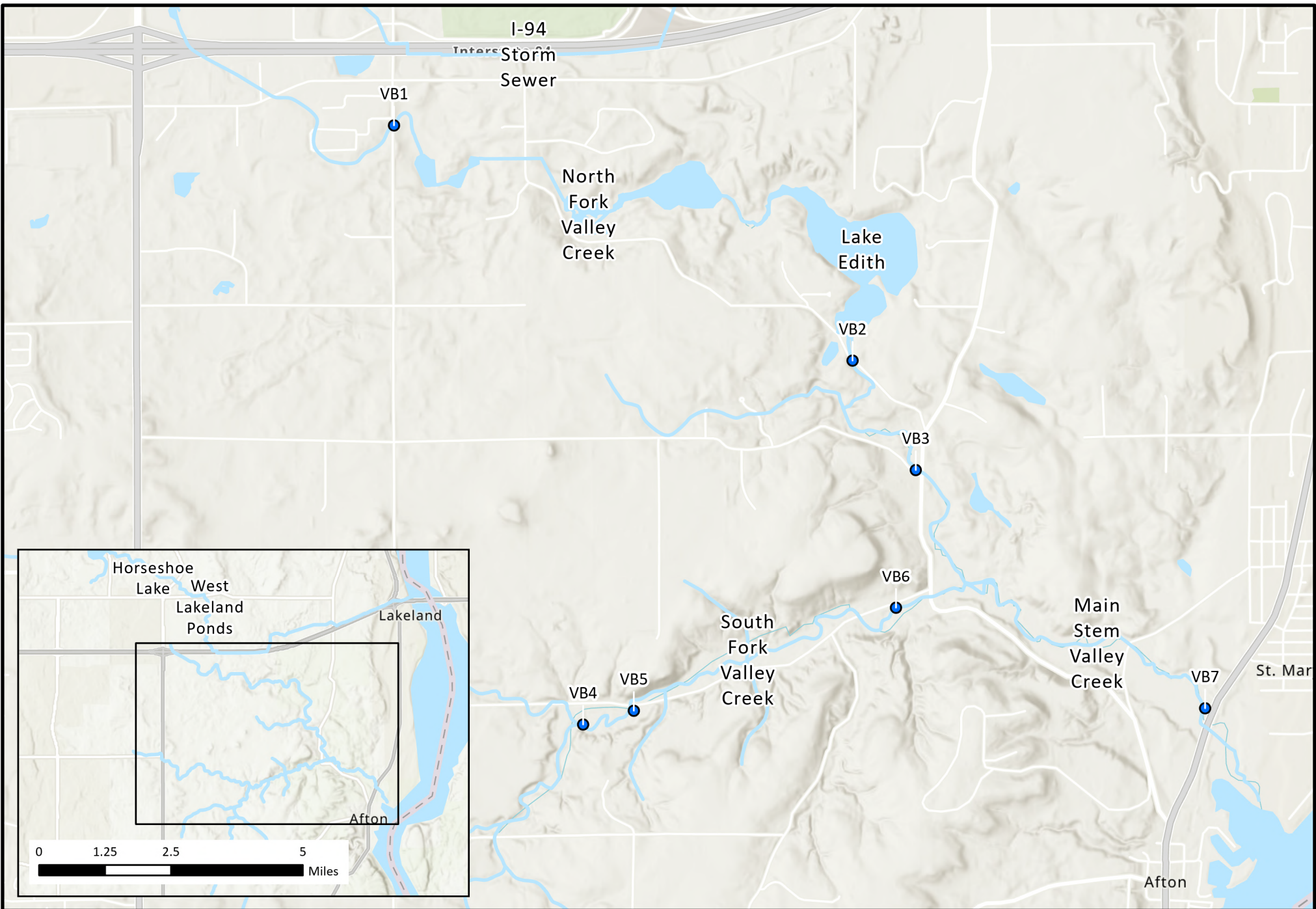




**Figure 20: Surface Water Samples
Horseshoe Lake and West Lakeland Ponds
Project 1007 Feasibility Study**



● Surface Water Sample Locations



**Figure 21: Surface Water Sample Locations
Valley Branch Creek System and Lake Edith
Project 1007 Feasibility Study**



Oakdale Disposal Site

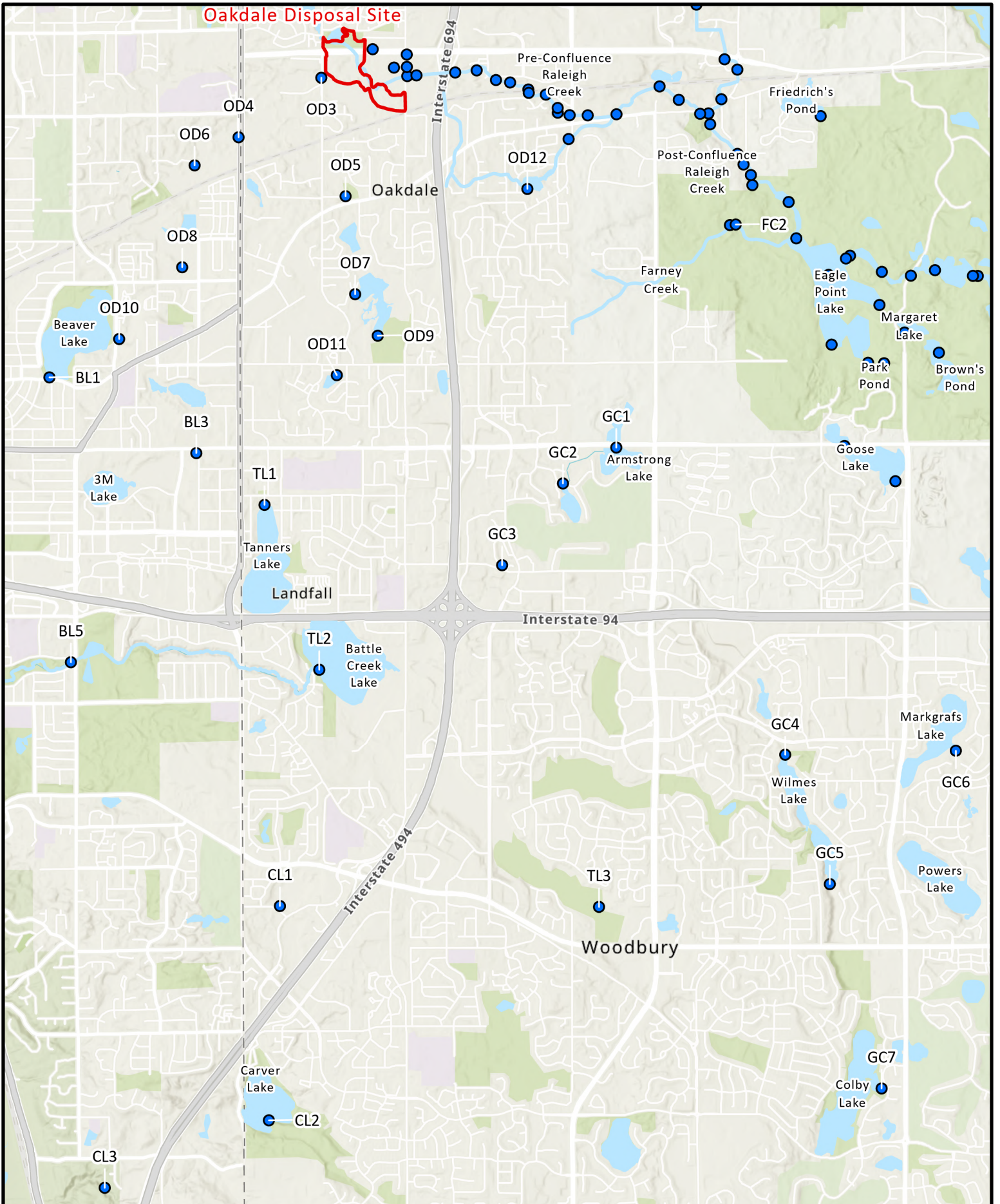
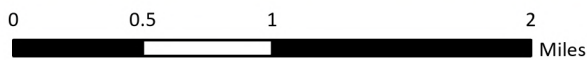


Figure 22: Surface Water Samples
Sitewide
Project 1007 Feasibility Study



● Surface Water Sample Location



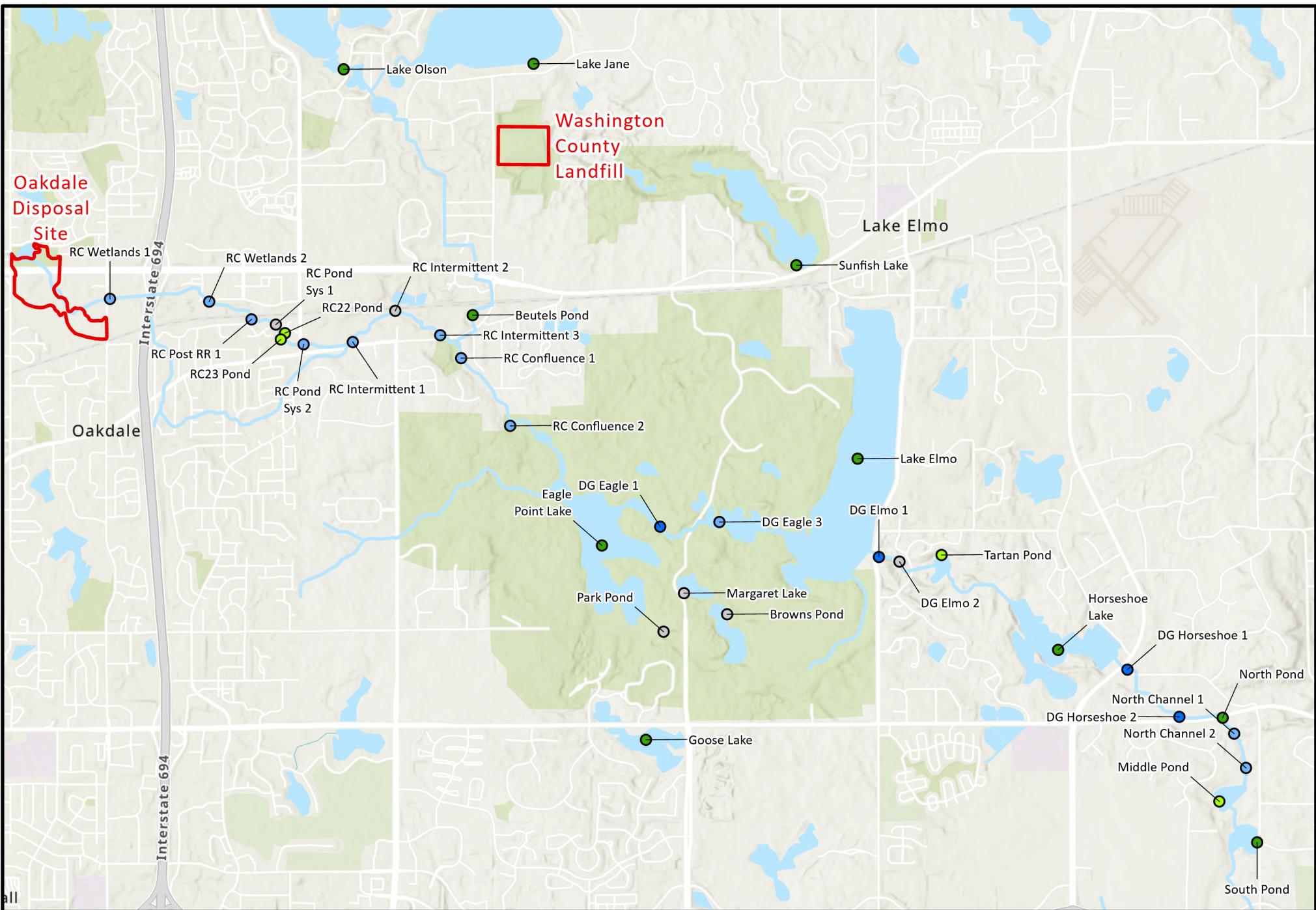
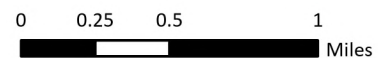


Figure 23: Surface Water Gauging and Flow Measurement Locations in P1007 Corridor
Project 1007 Feasibility Study

- AECOM-Installed Creek Staff Gauge Station
- AECOM-Installed Creek Transducer Station
- AECOM-Installed Pond Staff Gauge Station
- MnDNR or VBWD Staff Gauge Station
- Removed Station



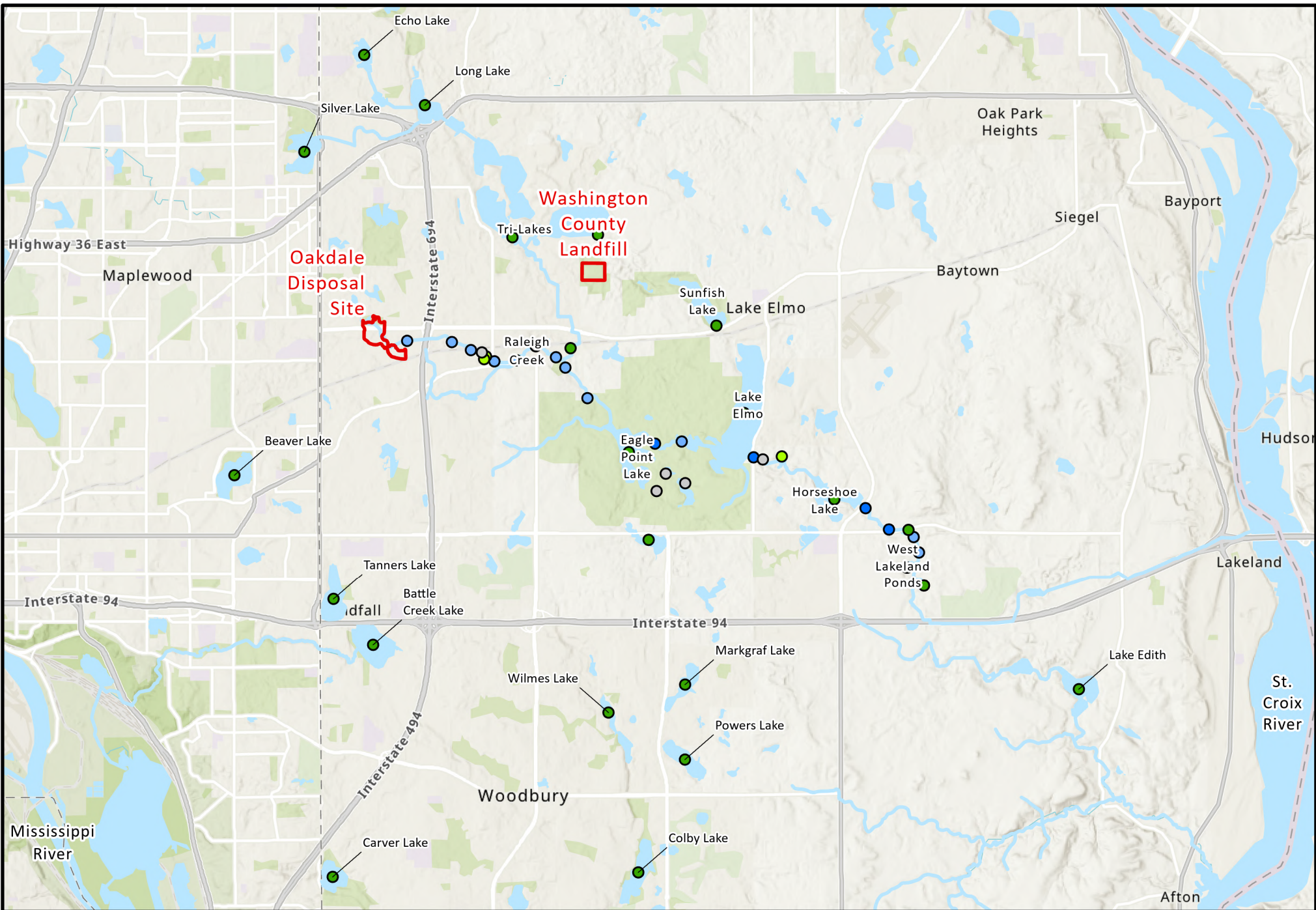
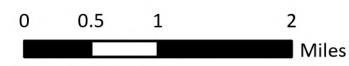
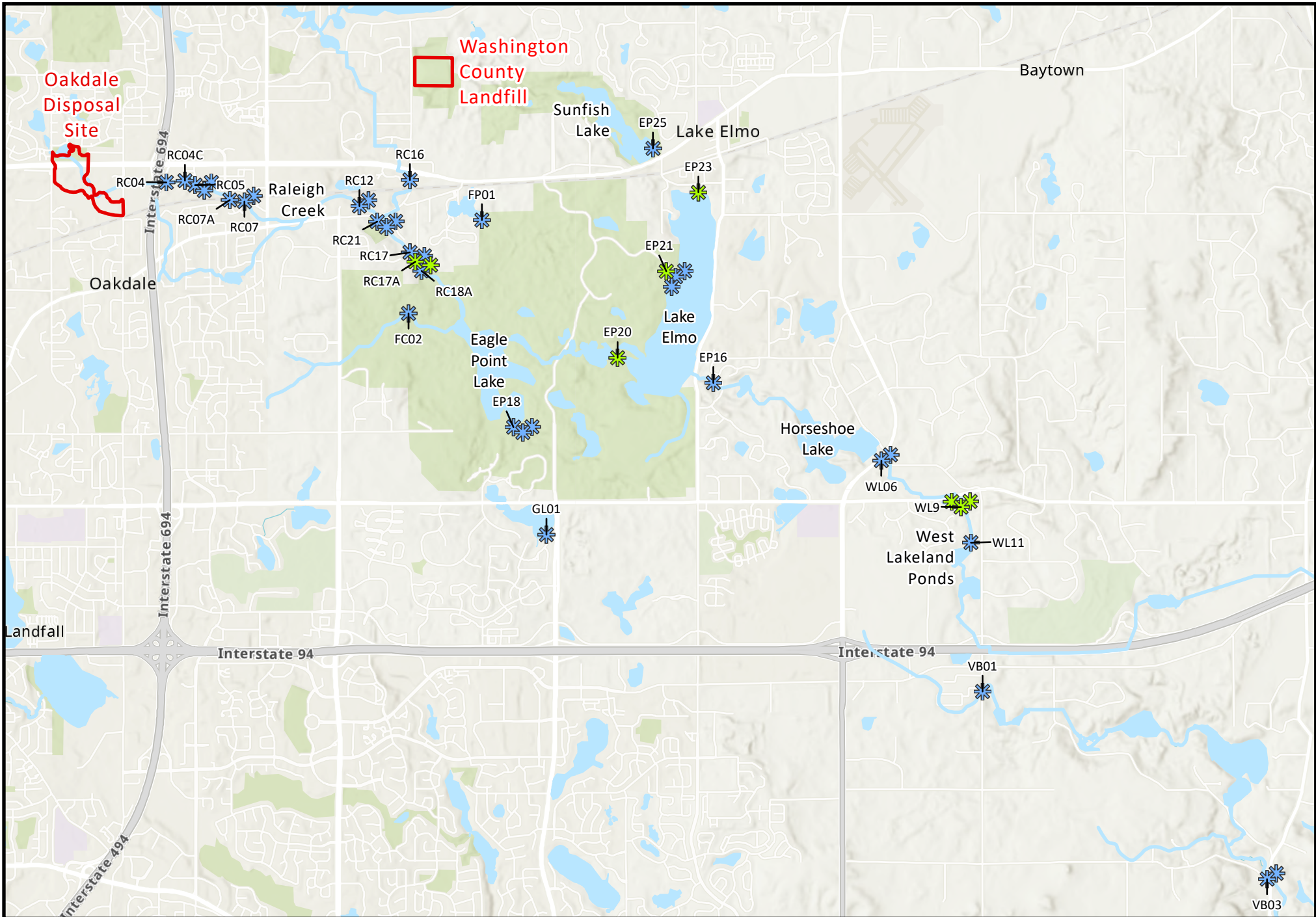


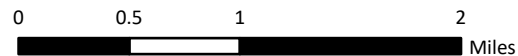
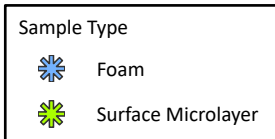
Figure 24: Surface Water Gauging and Flow Measurement Locations in Site
Project 1007 Feasibility Study

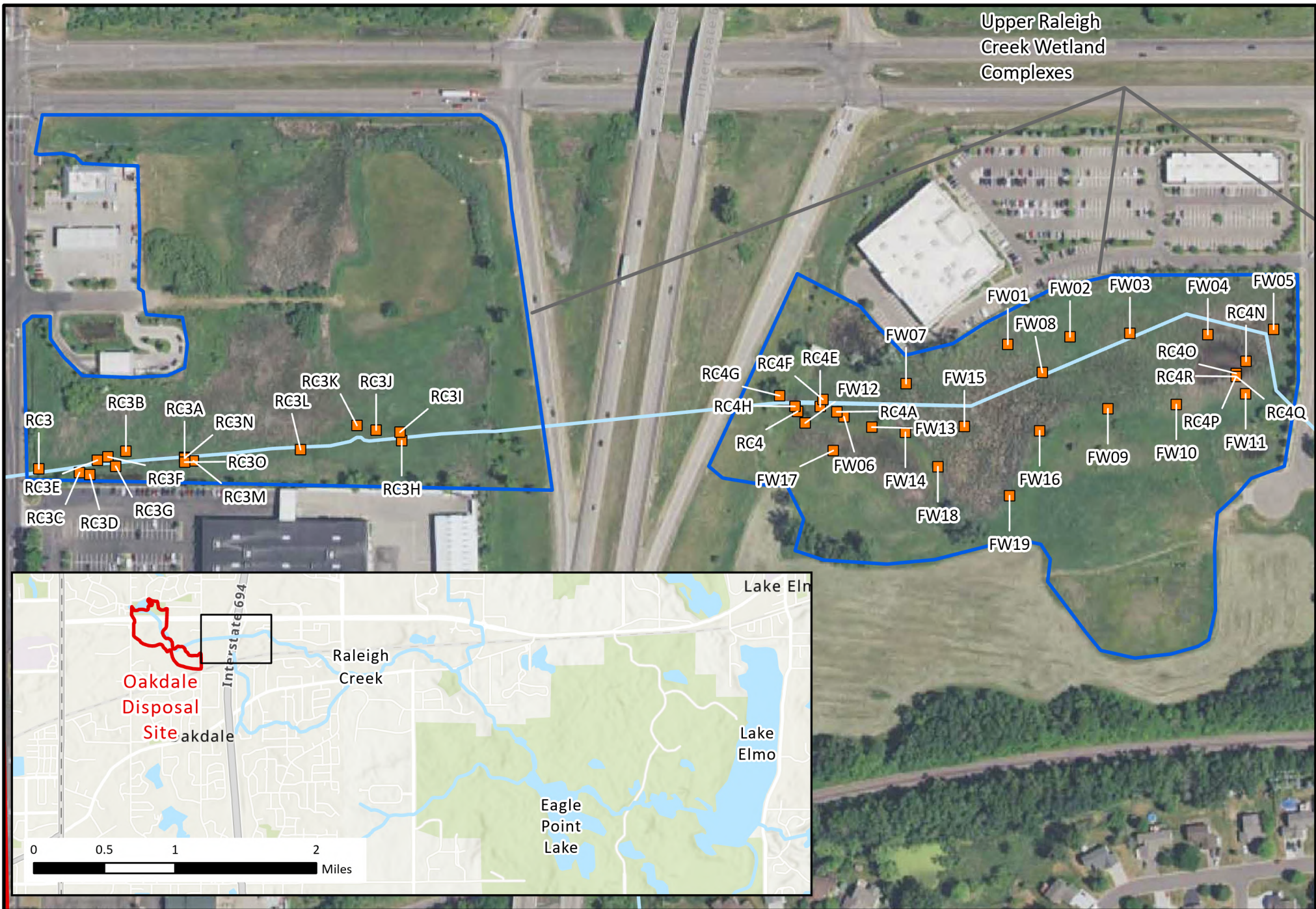
- AECOM-Installed Creek Staff Gauge Station
- AECOM-Installed Creek Transducer Station
- AECOM-Installed Pond Staff Gauge Station
- MnDNR or VBWD Staff Gauge Station
- Removed Station





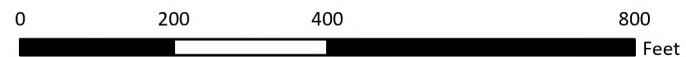
**Figure 25: Foam and Surface Microlayer
Sample Location Map
Project 1007 Feasibility Study**

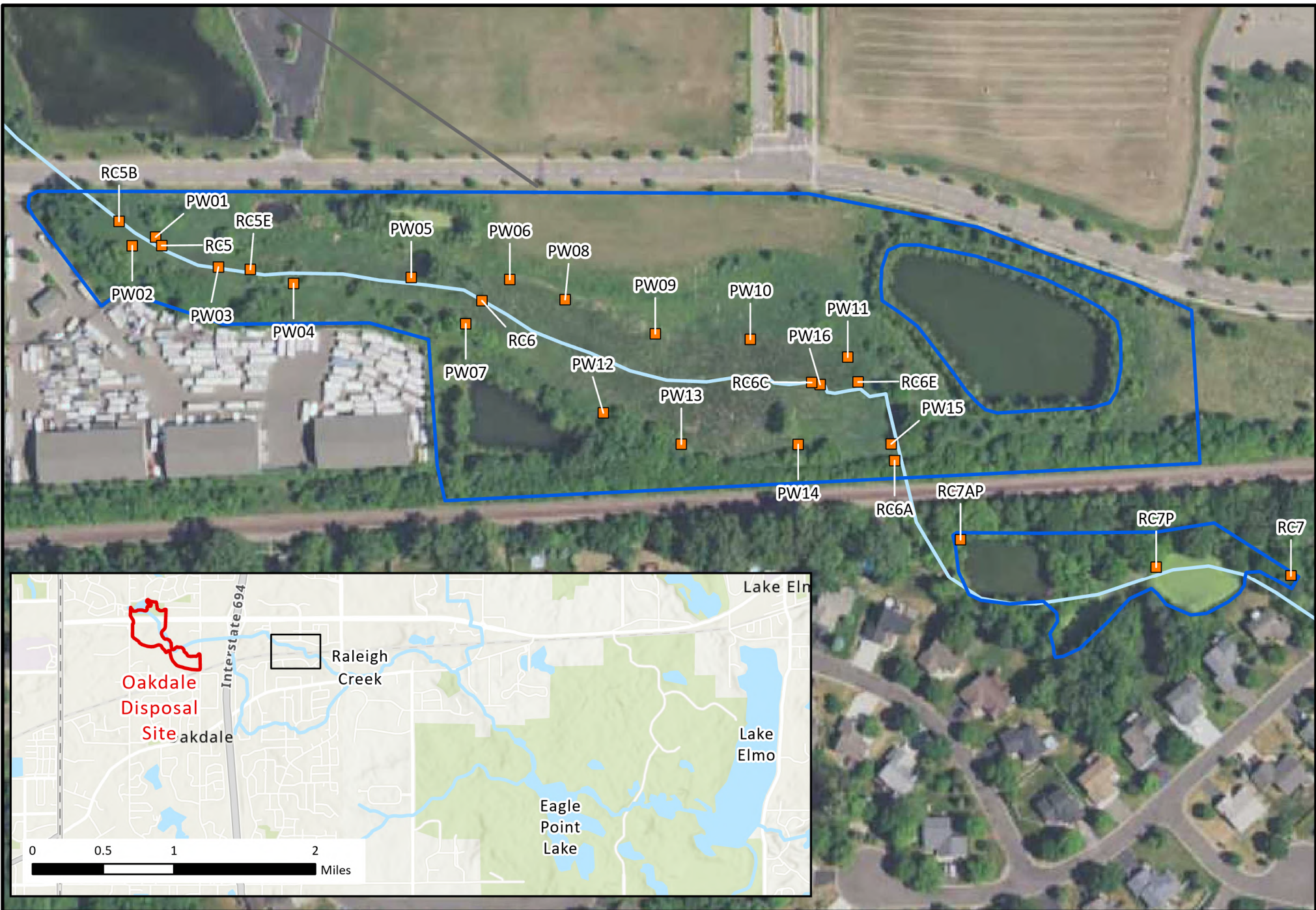




**Figure 26: Sediment Sample Locations
Western Upper Raleigh Creek Wetlands
Project 1007 Feasibility Study**

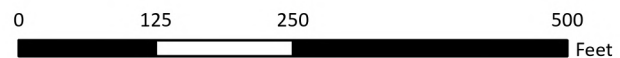
- ▭ Wetland Complex Delineation
- Surface Water Flow Path
- Sediment Sample Location





**Figure 27: Sediment Sample Locations
Eastern Upper Raleigh Creek Wetlands
Project 1007 Feasibility Study**

- ▭ Wetland Complex Delineation
- Surface Water Flow Path
- Sediment Sample Location



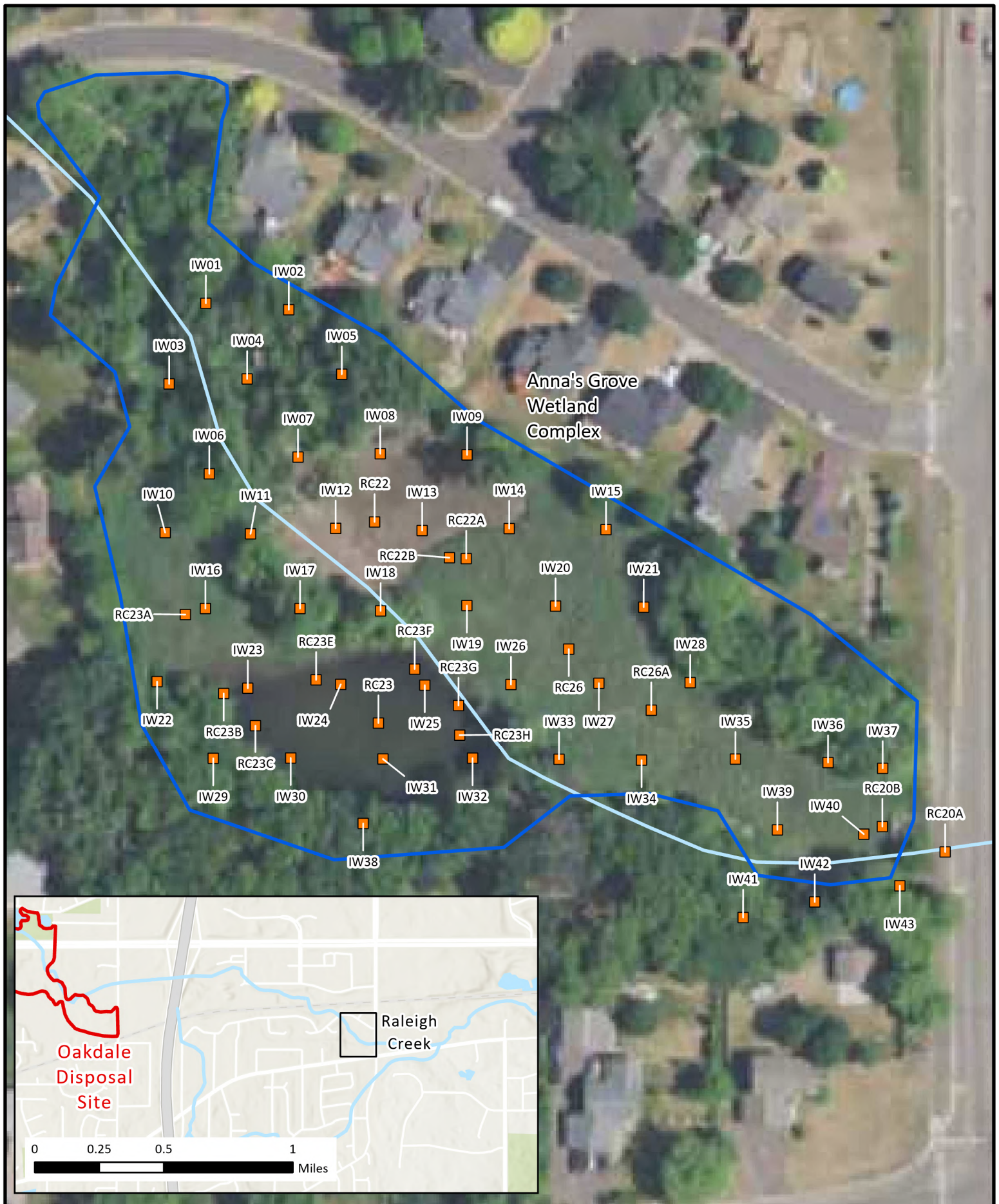
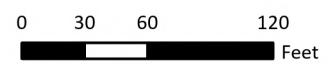
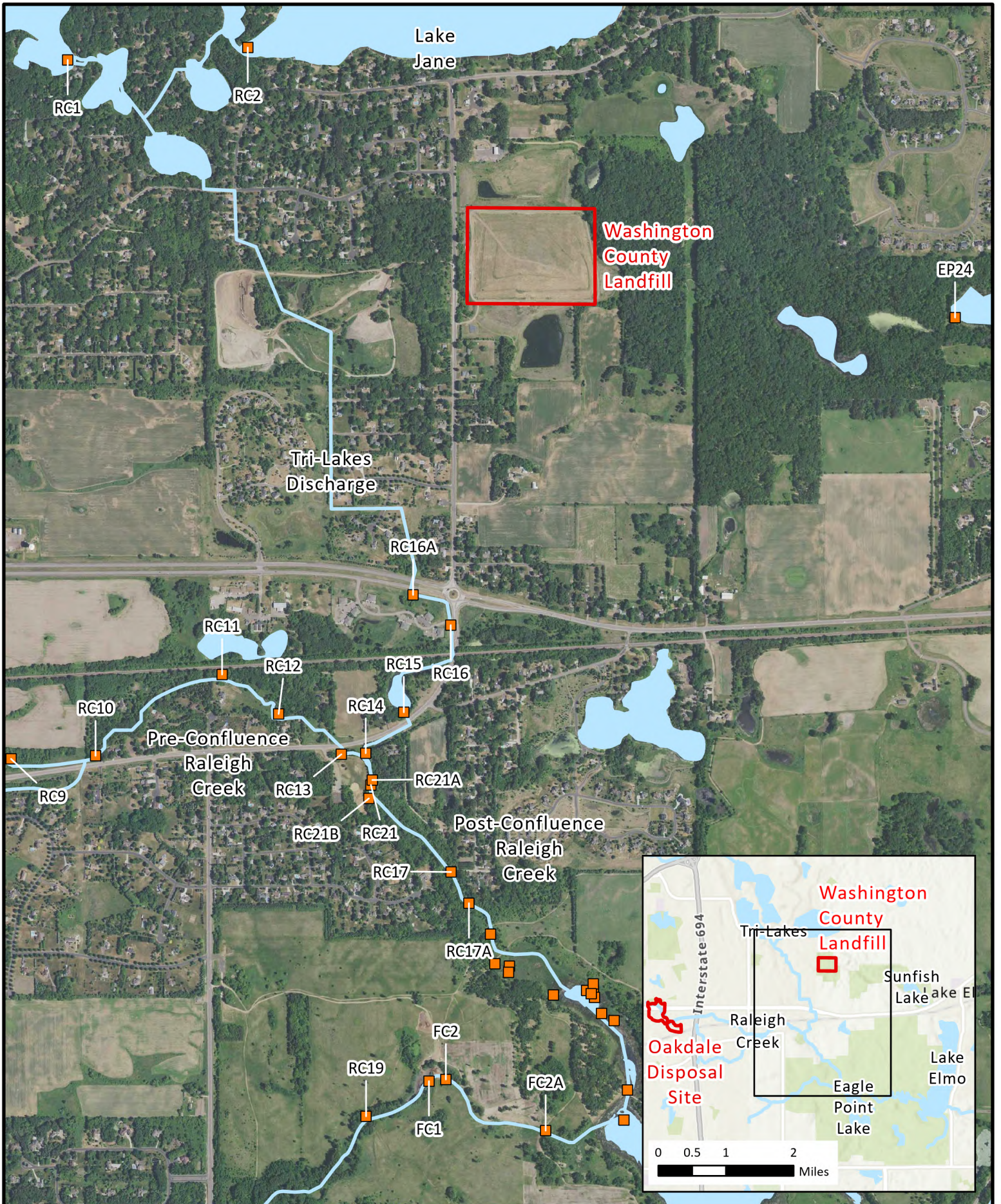


Figure 28: Sediment Sample Locations
Anna's Grove Wetland Complex
Project 1007 Feasibility Study

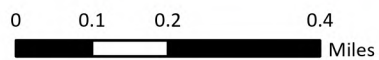
- ▭ Wetland Complex Delineation
- ▭ Surface Water Flow Path
- ▭ Sediment Sample Location





**Figure 29: Sediment Sample Locations
Raleigh Creek and Tri-Lakes Area
Project 1007 Feasibility Study**

- ▬ Wetland Complex Delineation
- ▬ Surface Water Flow Path
- Sediment Sample Location



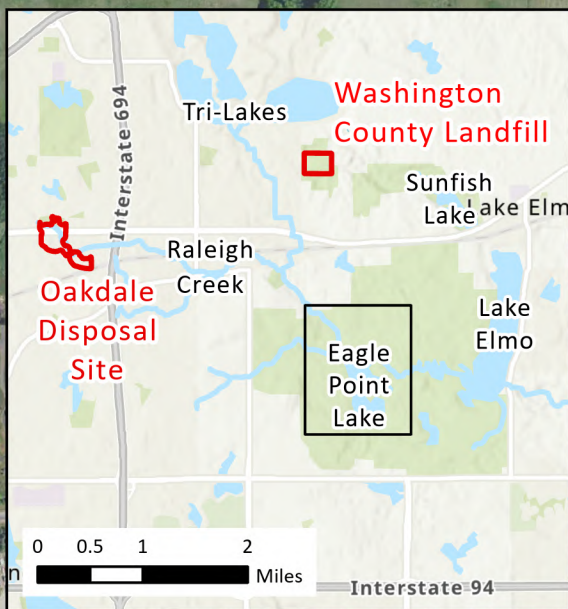
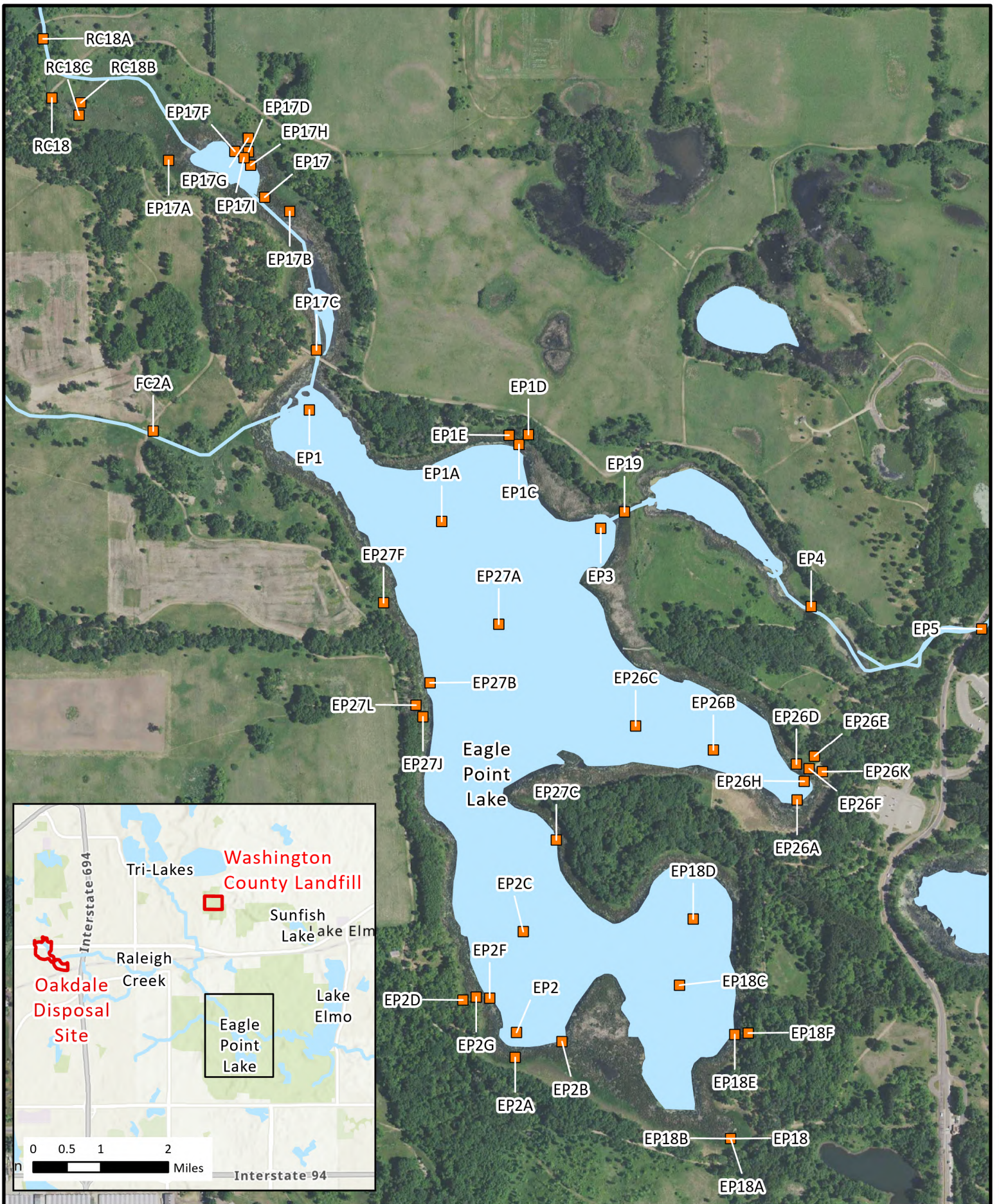
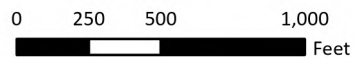
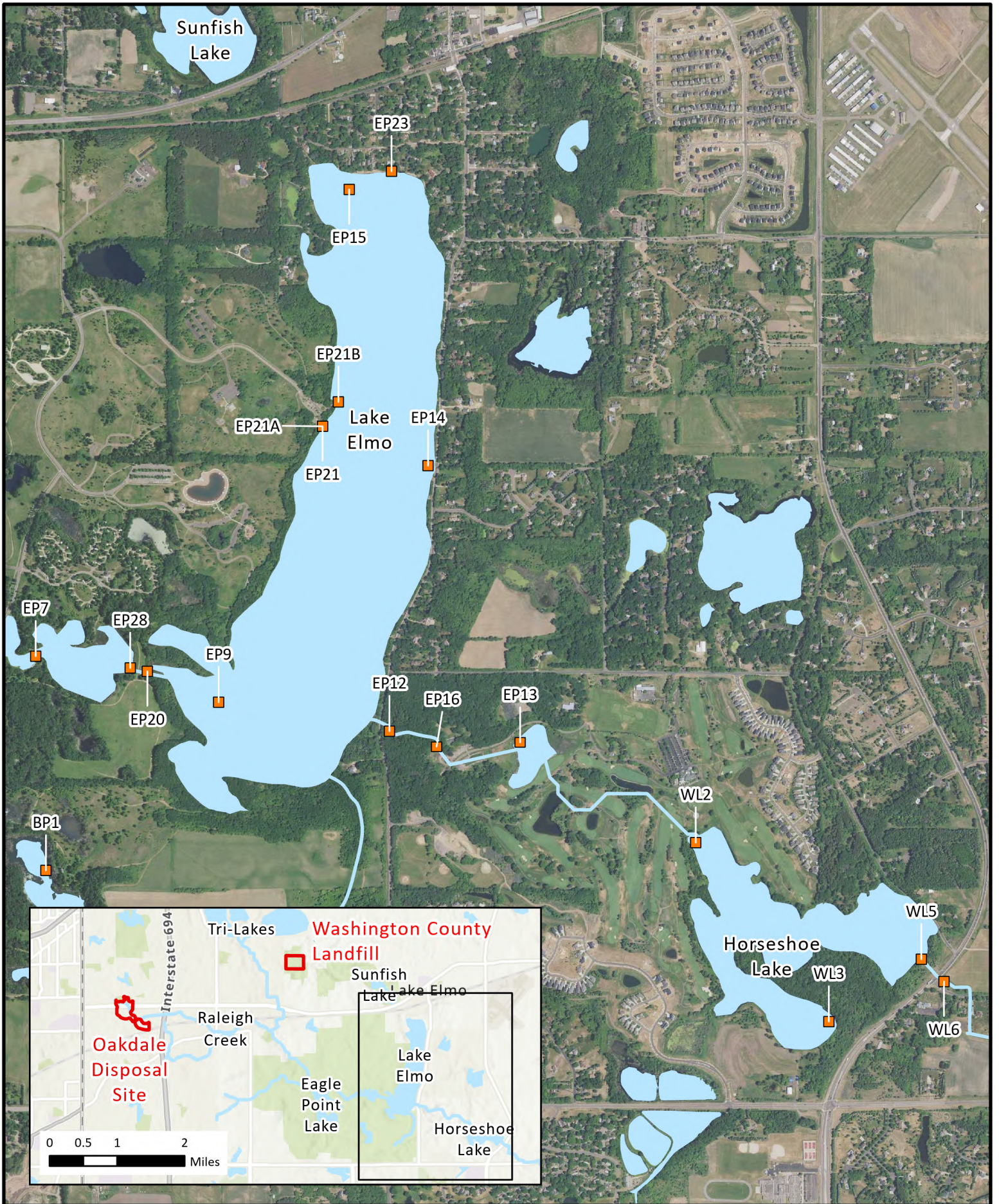


Figure 30: Sediment Sample Locations
Eagle Point Lake
Project 1007 Feasibility Study

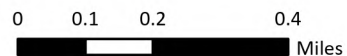
- ▭ Wetland Complex Delineation
- ▭ Surface Water Flow Path
- ▭ Sediment Sample Location





**Figure 31: Sediment Sample Locations
Lake Elmo and Horseshoe Lake Area
Project 1007 Feasibility Study**

- ▬ Wetland Complex Delineation
- ▬ Surface Water Flow Path
- Sediment Sample Location



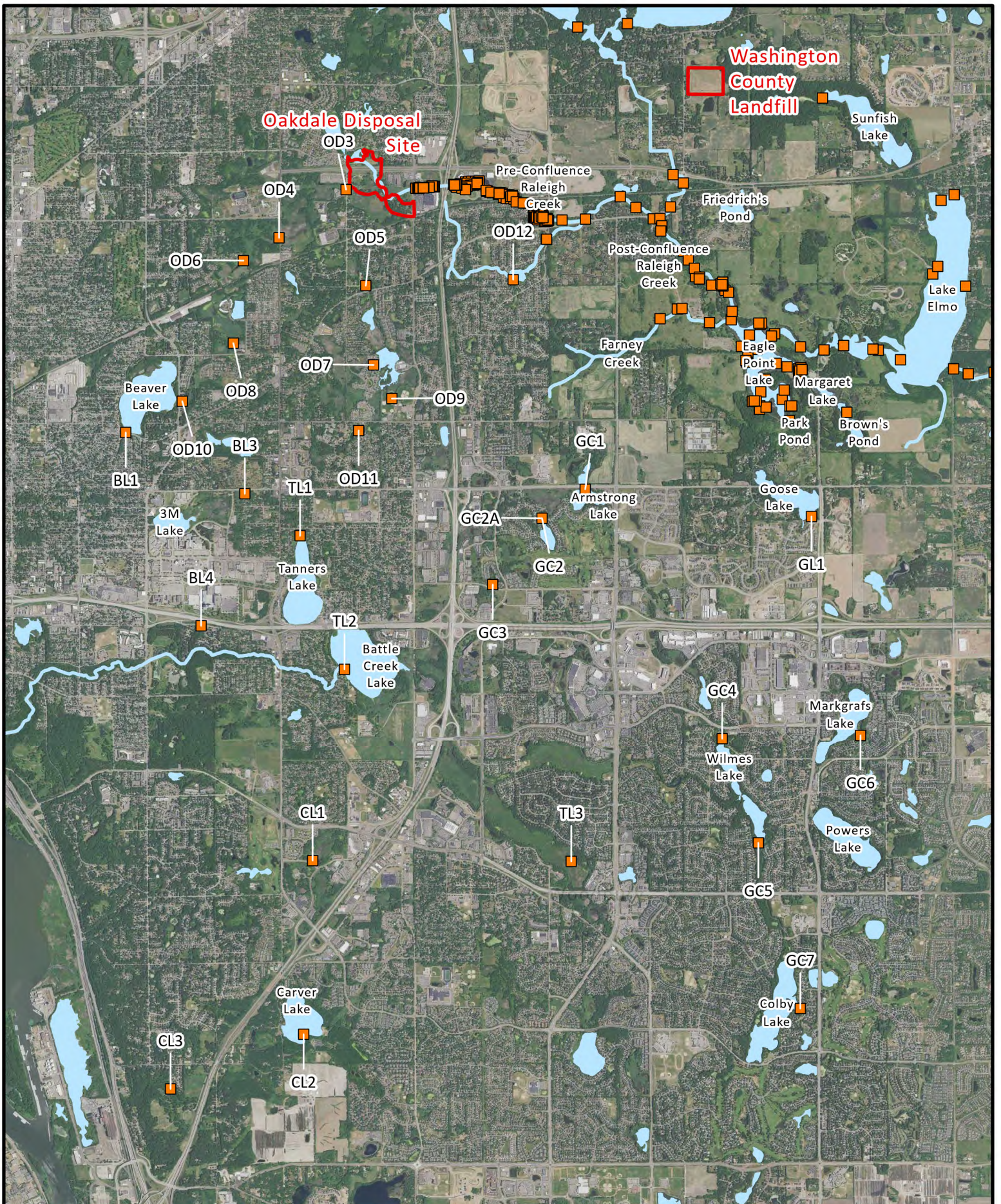
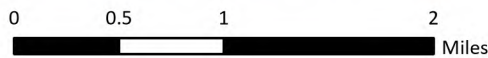
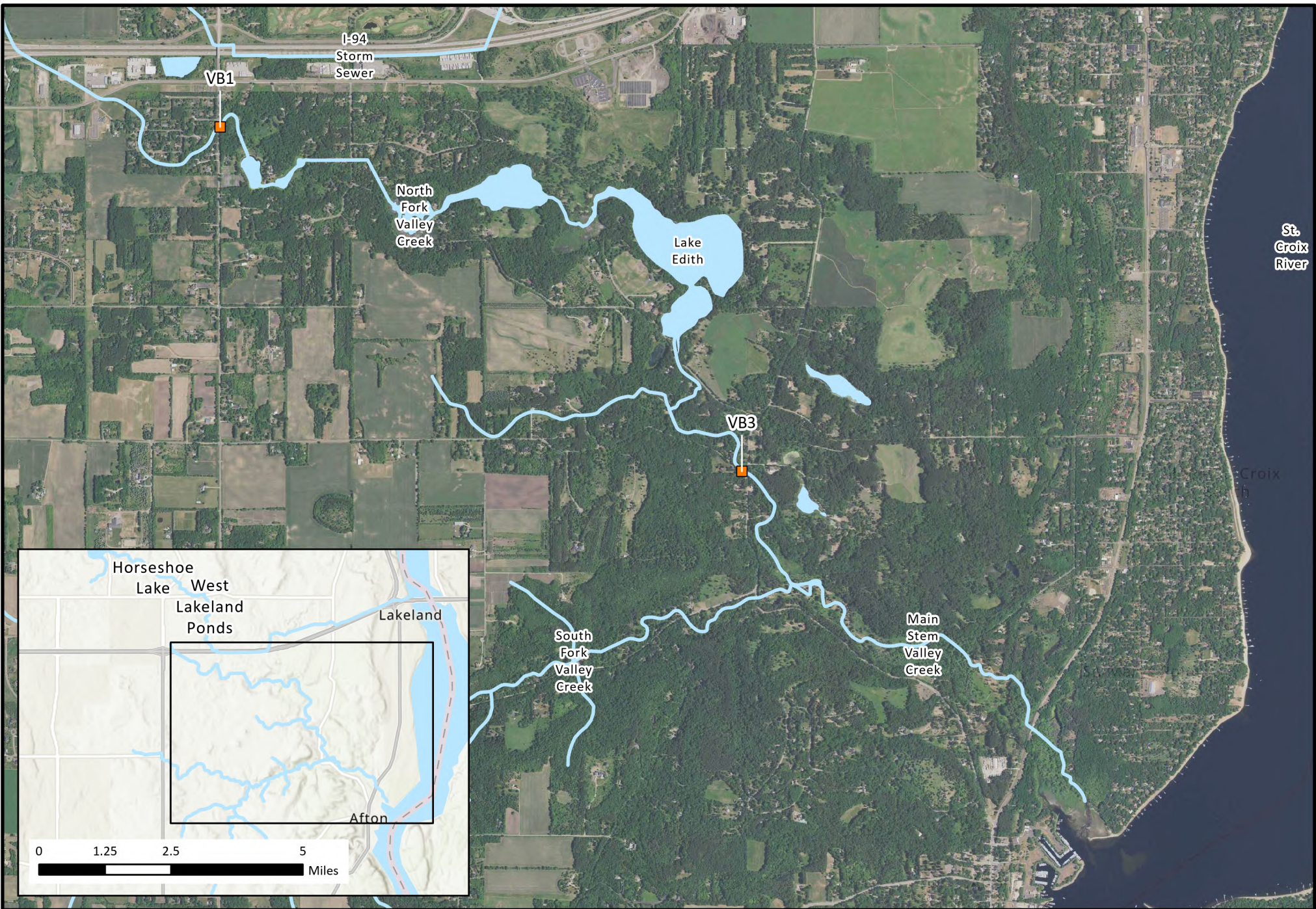


Figure 32: Sediment Sample Locations
 Expanded Project Domain
 Project 1007 Feasibility Study



AECOM

■ Sediment Sample Location



**Figure 33: Sediment Sample Locations
Valley Branch Creek System and Lake Edith
Project 1007 Feasibility Study**



■ Sediment Sample Location

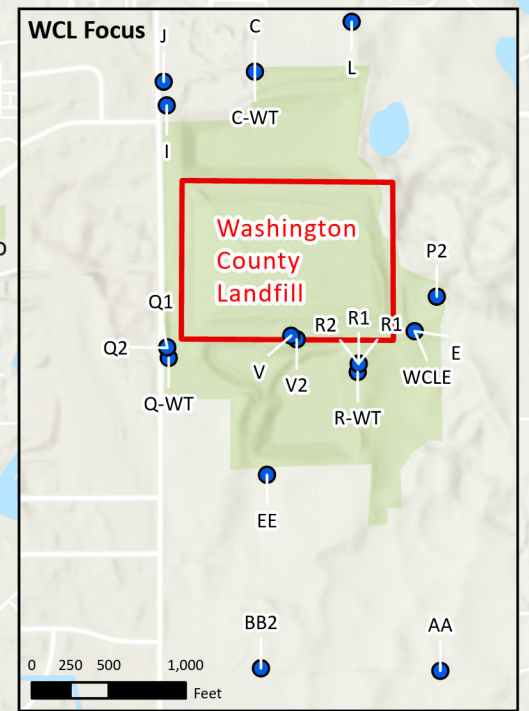
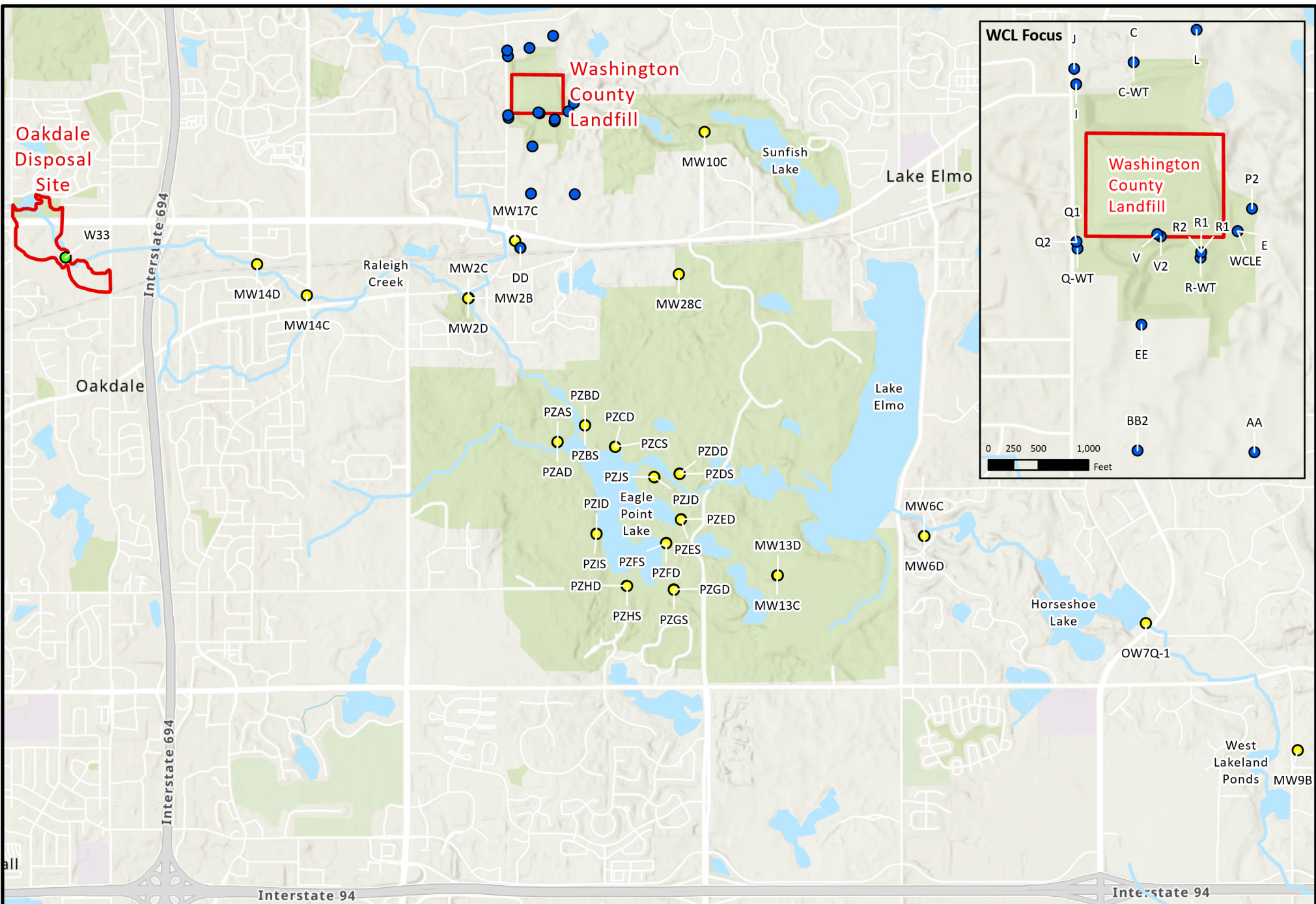
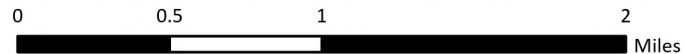


Figure 34: Groundwater Sampling and Gauging Locations
Quaternary Aquifer
Project 1007 Feasibility Study



- Project 1007 Well
- 3M Well
- Closed Landfill Well

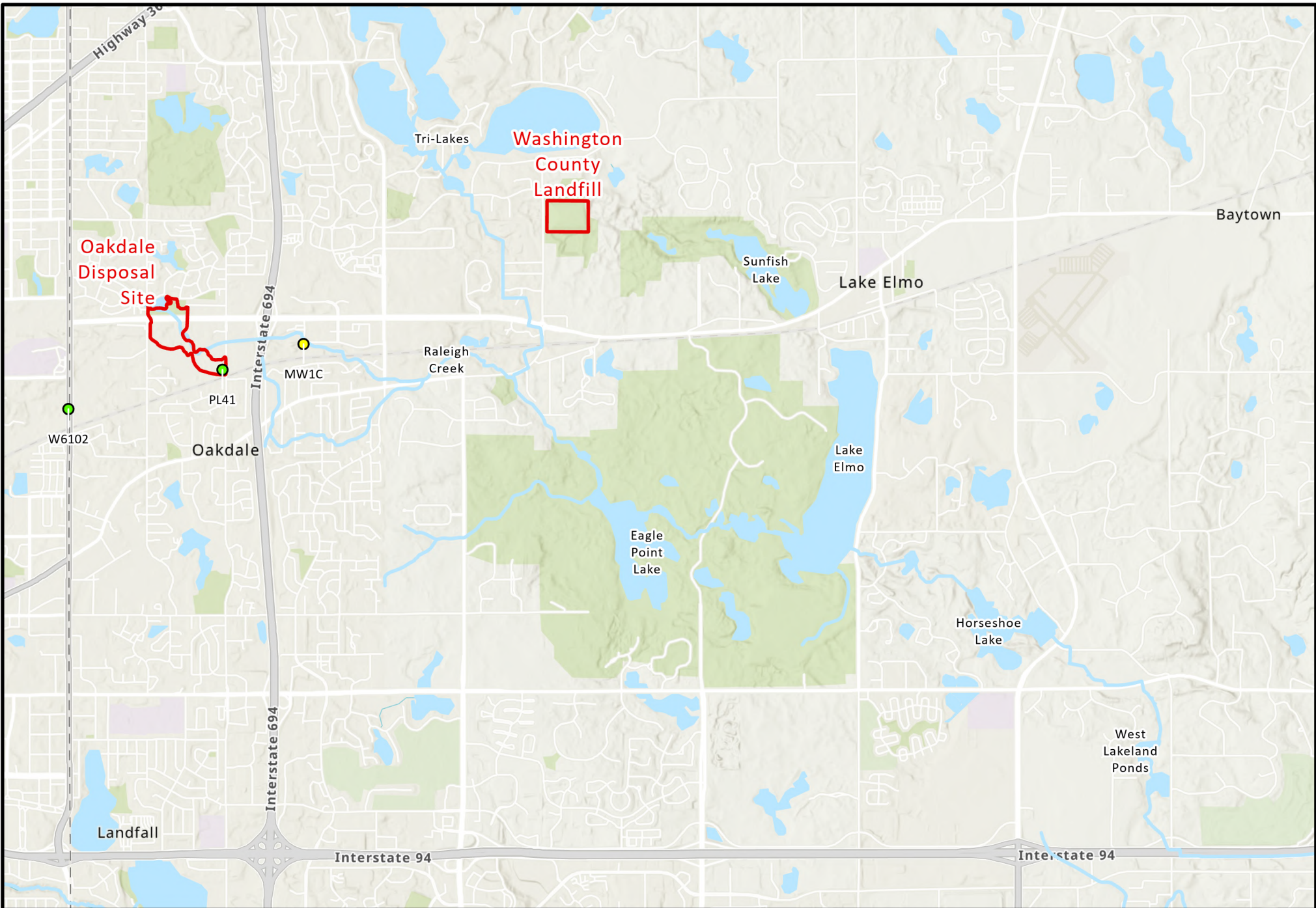
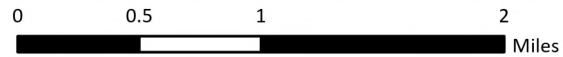


Figure 35: Groundwater Sampling and Gauging Locations
Platteville Aquifer
Project 1007 Feasibility Study



- Project 1007 Well
- 3M Well

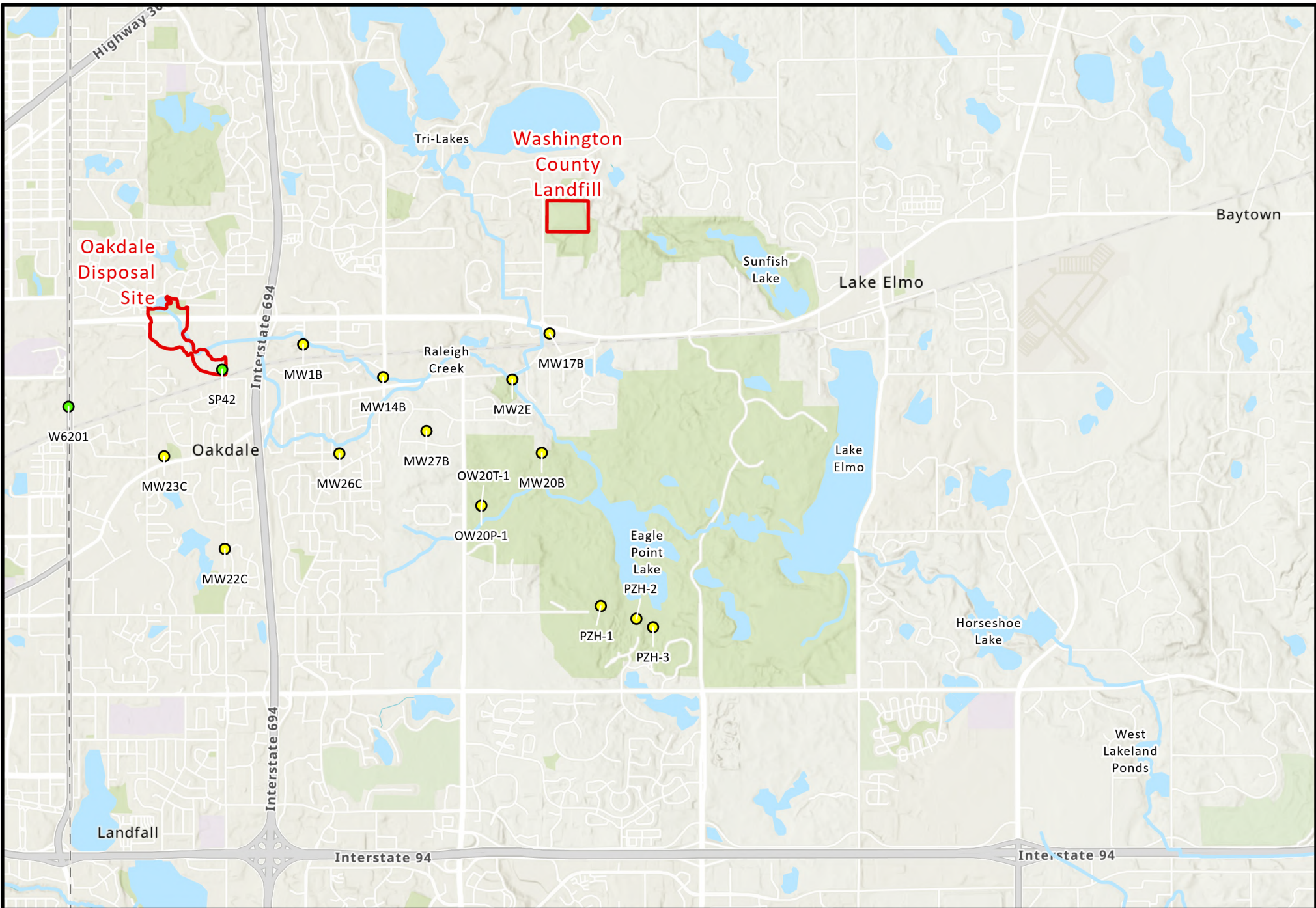
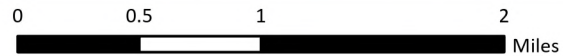


Figure 36: Groundwater Sampling and Gauging Locations
St. Peter Aquifer
Project 1007 Feasibility Study



- Project 1007 Well
- 3M Well

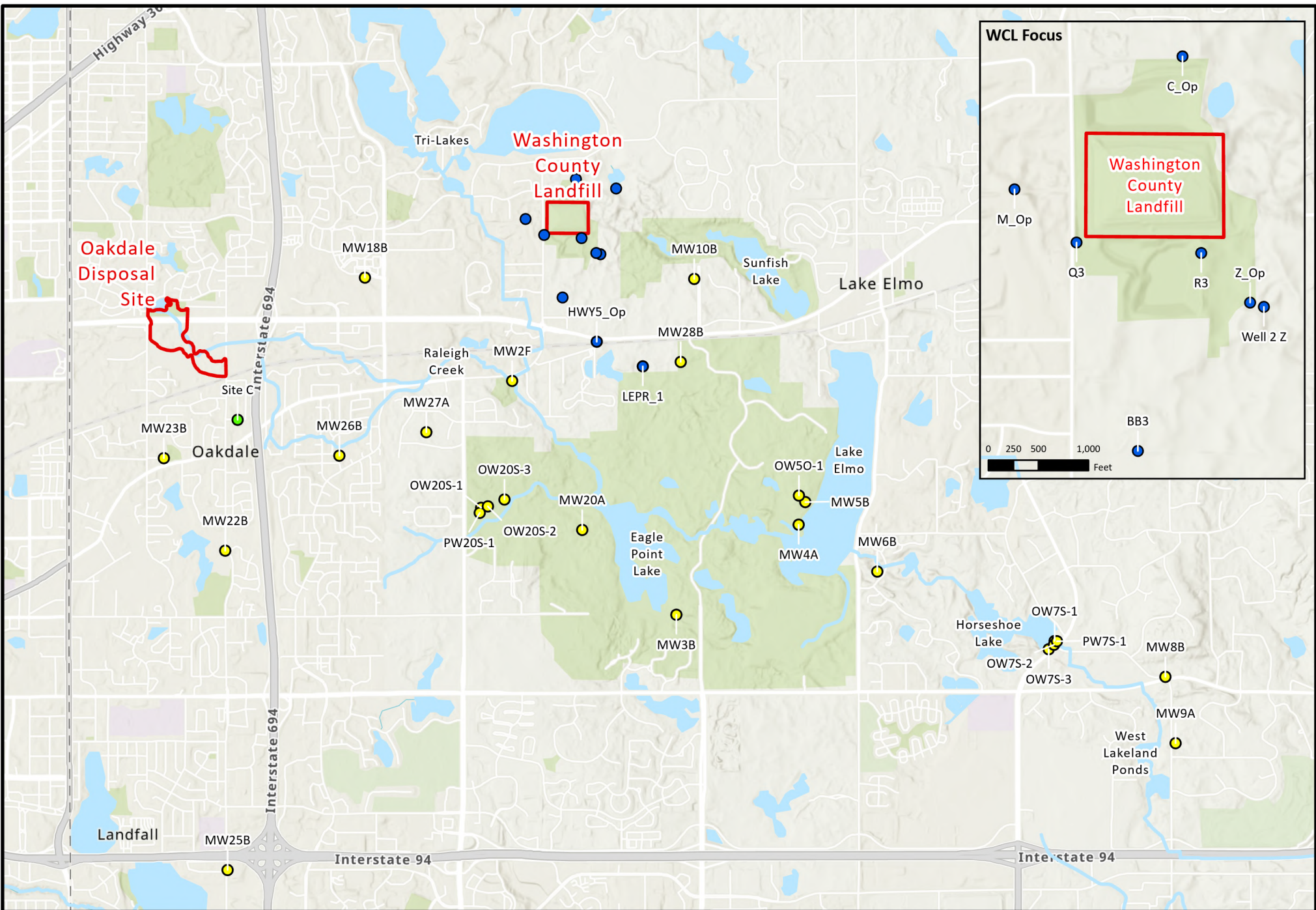
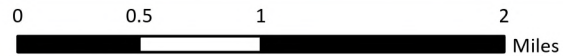


Figure 37: Groundwater Sampling and Gauging Locations
Prairie du Chien Aquifer
Project 1007 Feasibility Study



- Project 1007 Well
- 3M Well
- Closed Landfill Well

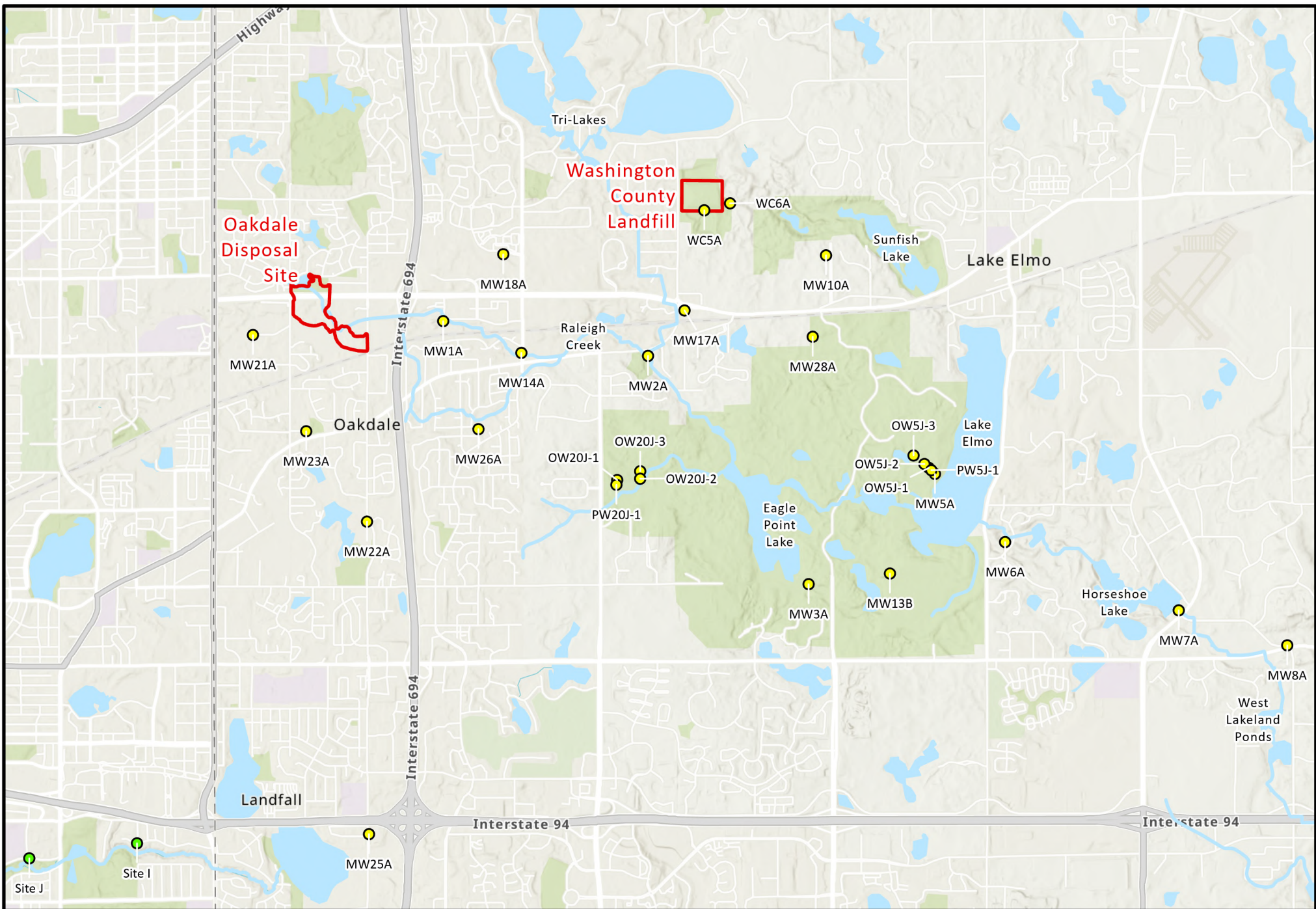
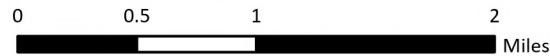


Figure 38: Groundwater Sampling and Gauging Locations
 Jordan Aquifer
 Project 1007 Feasibility Study

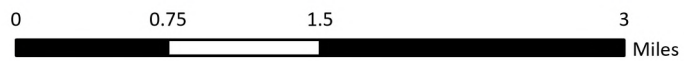


- Project 1007 Well
- 3M Well





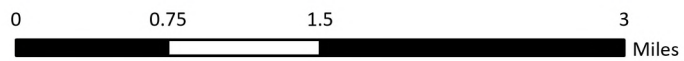
Figure 39: Groundwater Sampling and Gauging Locations
Tunnel City Group Aquifer
Project 1007 Feasibility Study



● Project 1007 Well



Figure 40: Groundwater Sampling and Gauging Locations
 Wonevoc Aquifer
 Project 1007 Feasibility Study



● Project 1007 Well



AECOM

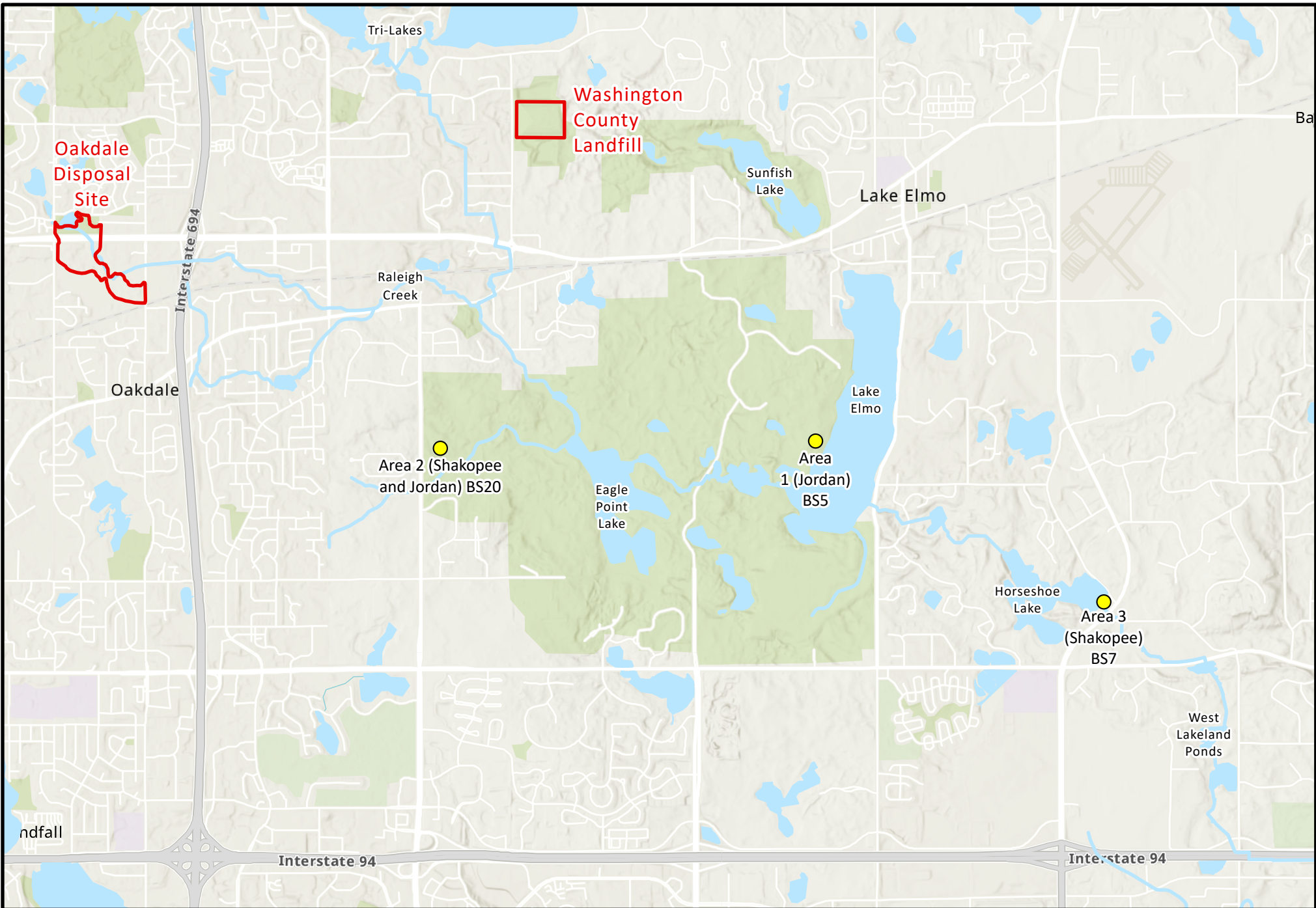
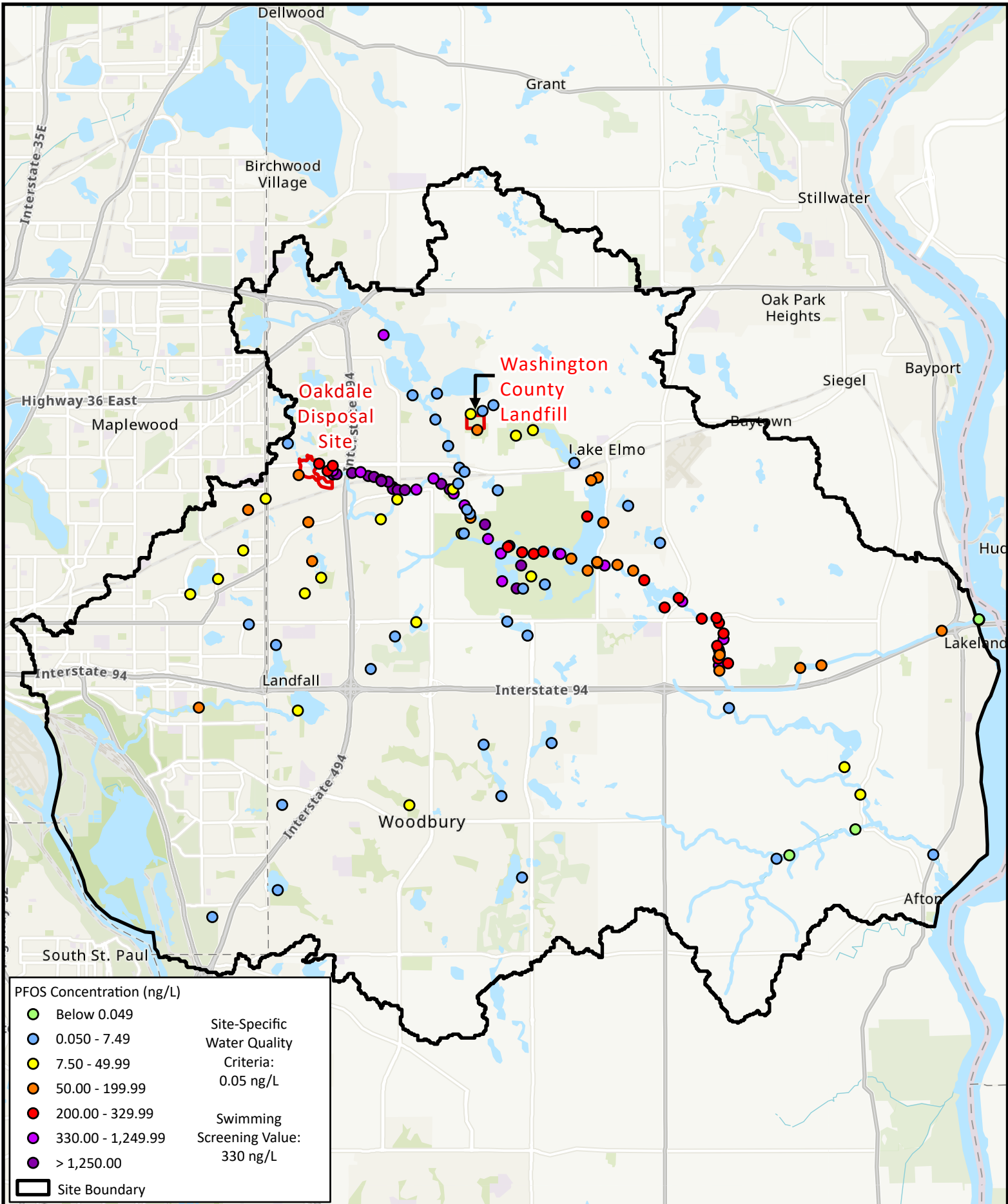
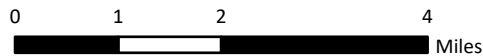
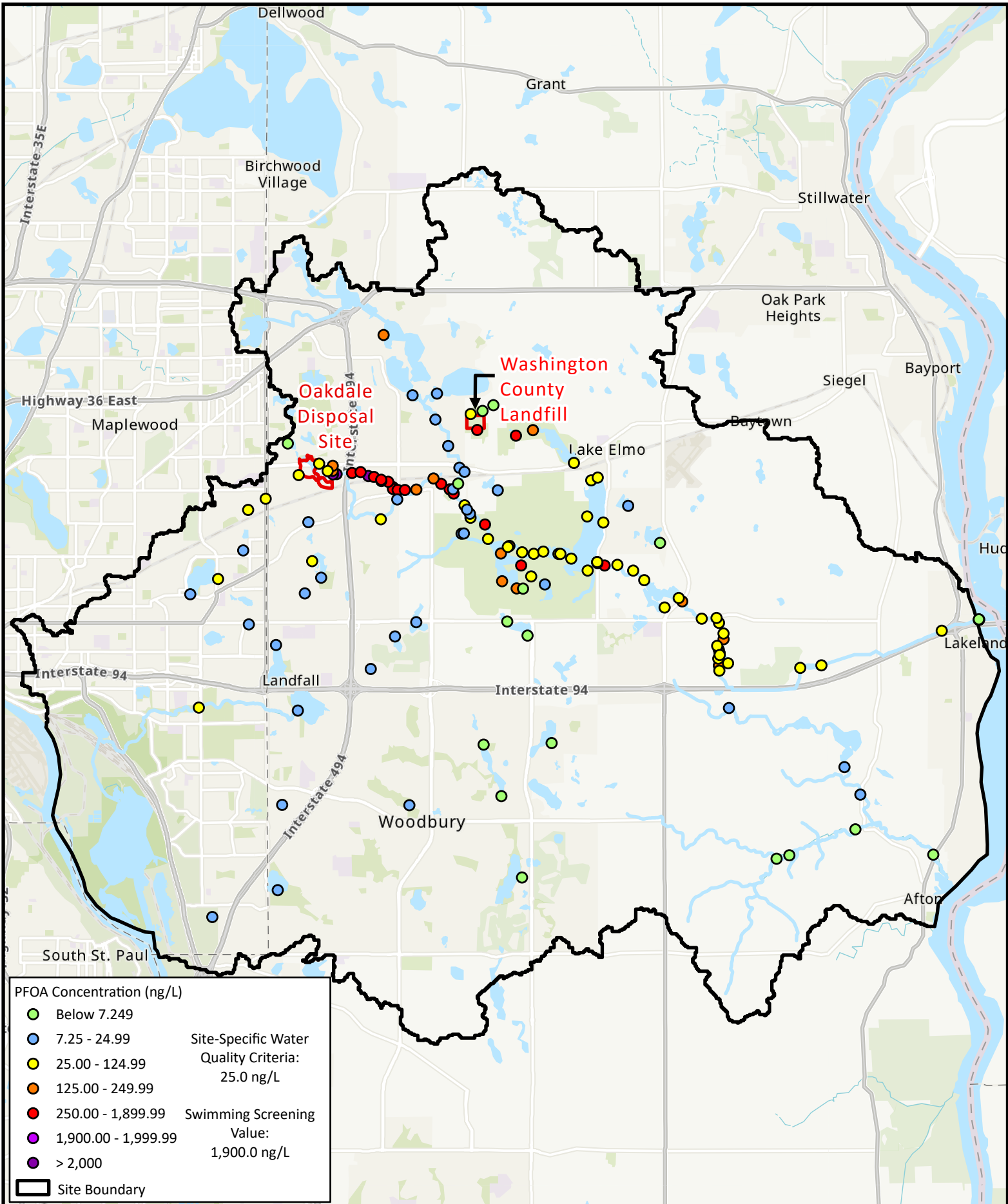


Figure 41: Aquifer Pumping Test Location Map

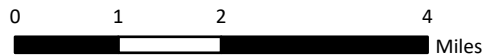


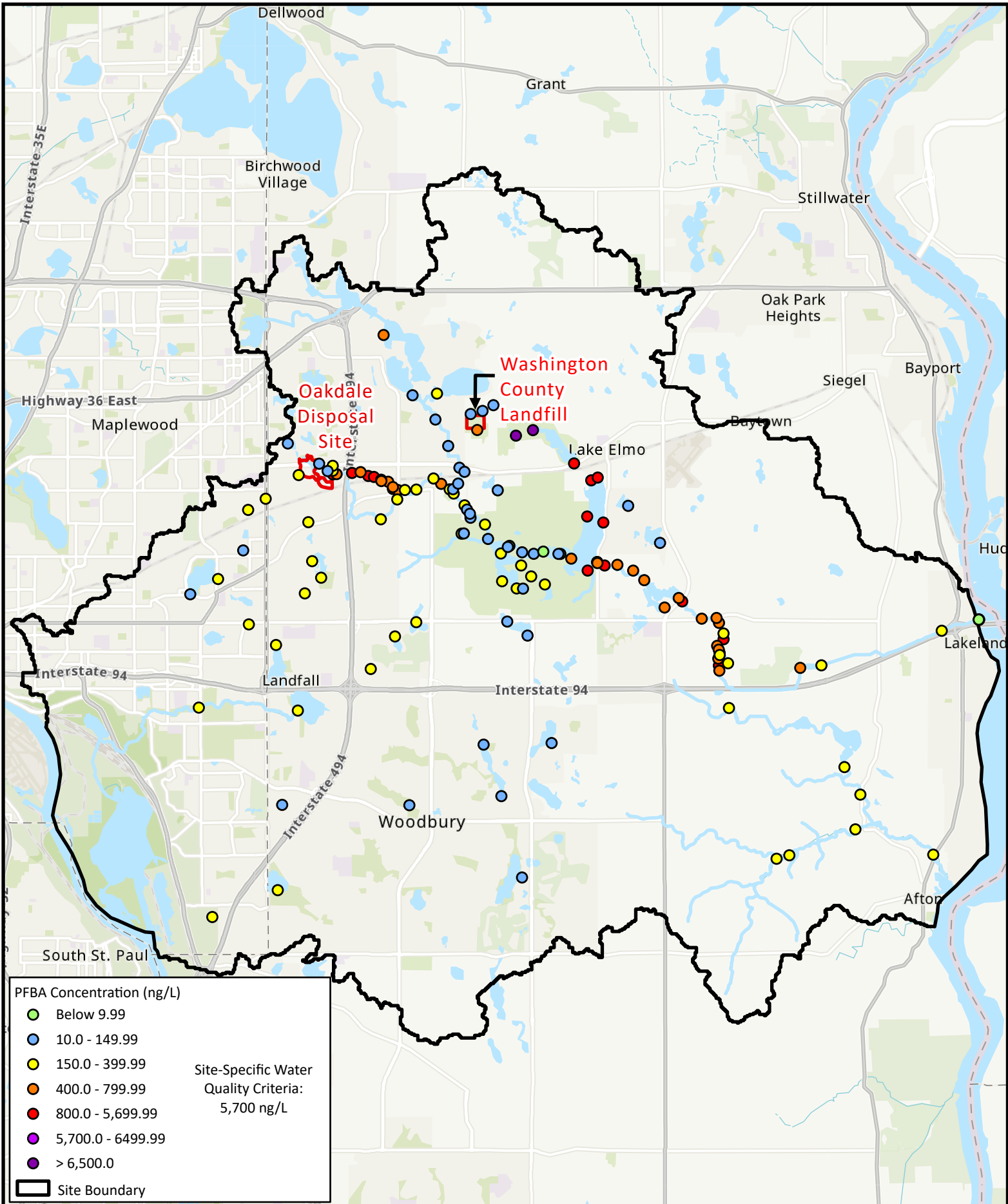
**Figure 42: PFOS Concentration in
Sitside Surface Water
Project 1007 Feasibility Study**



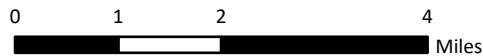


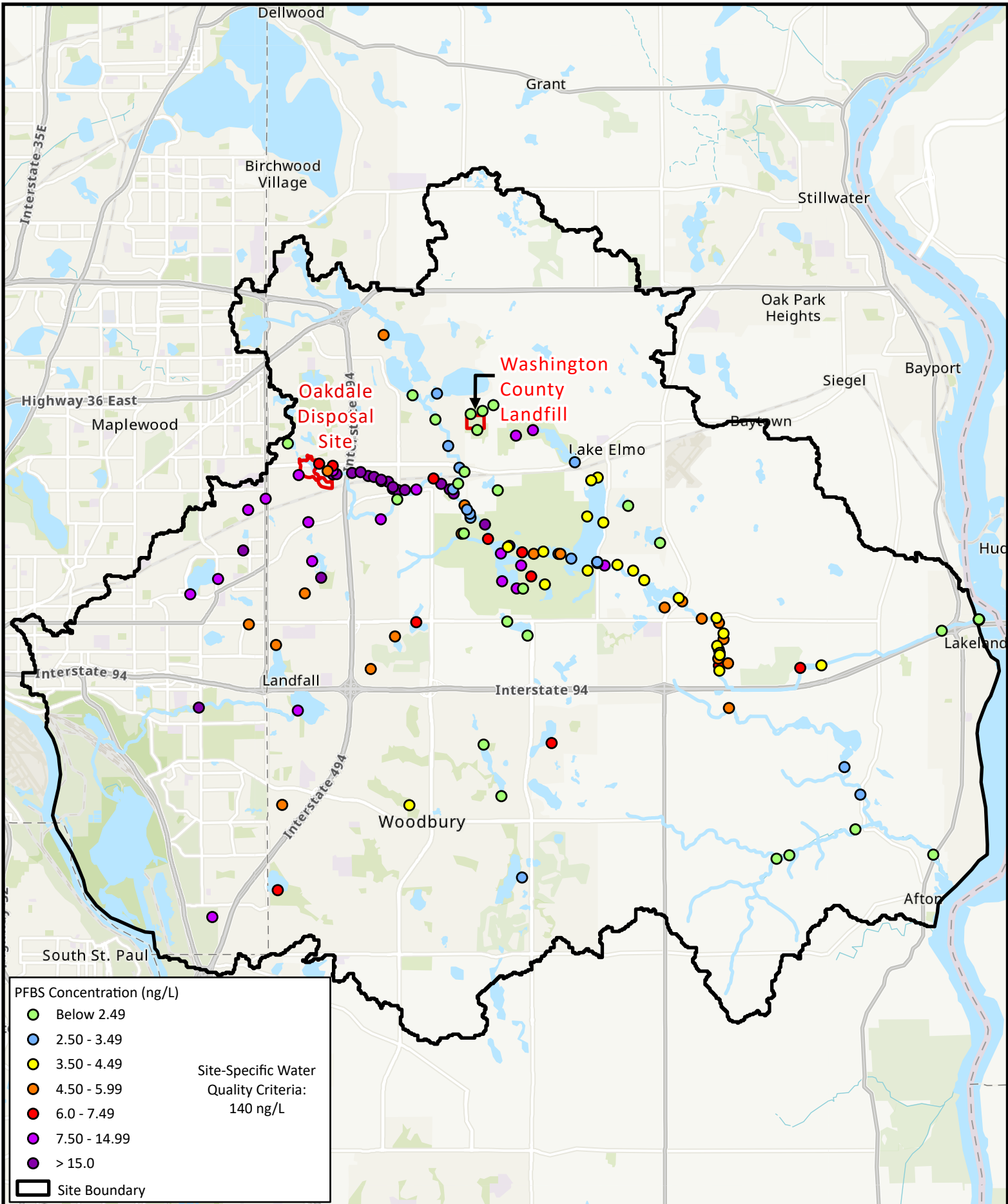
**Figure 43: PFOA Concentration in
Site-wide Surface Water
Project 1007 Feasibility Study**





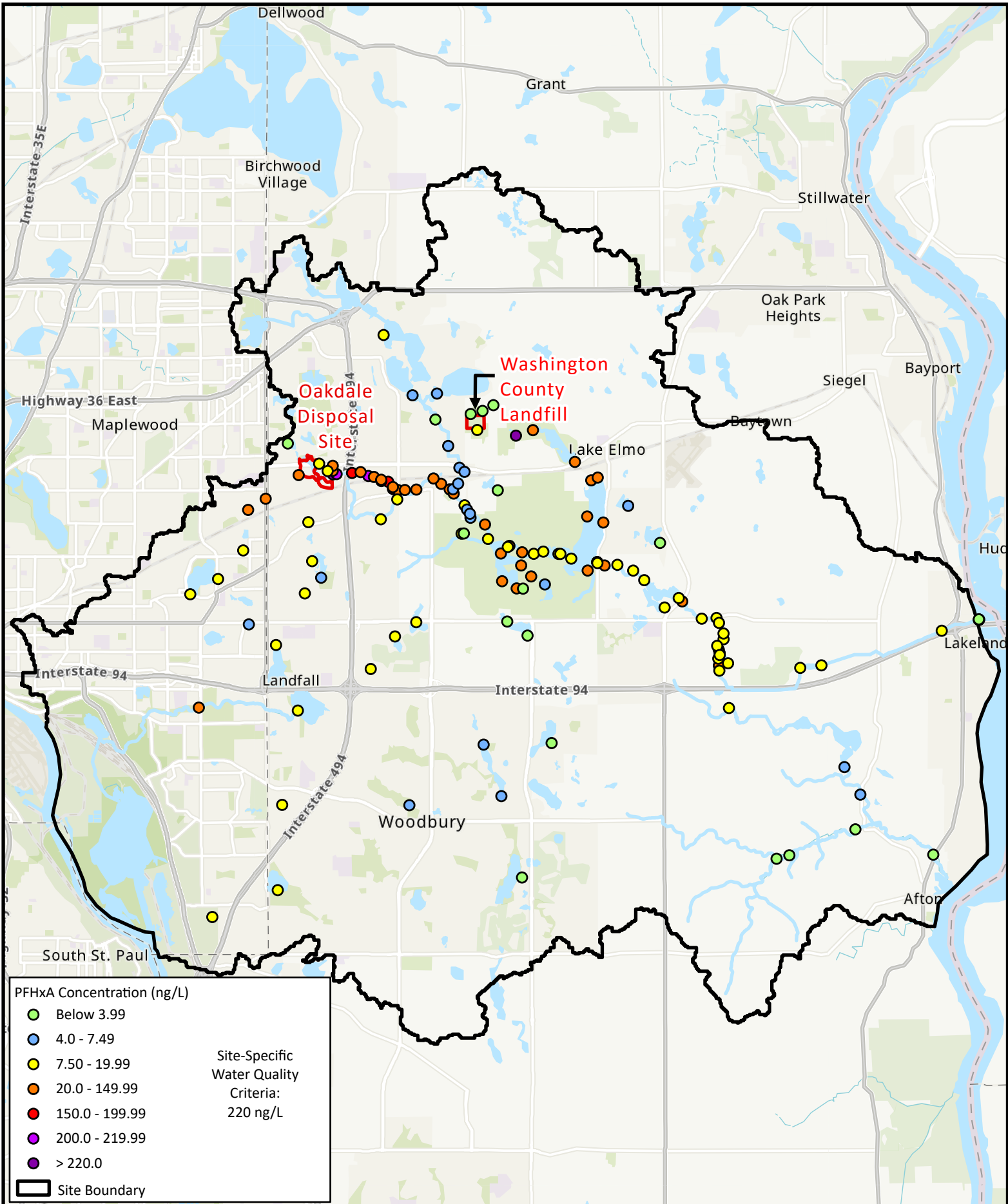
**Figure 44: PFBA Concentration in
Sitside Surface Water
Project 1007 Feasibility Study**



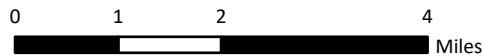


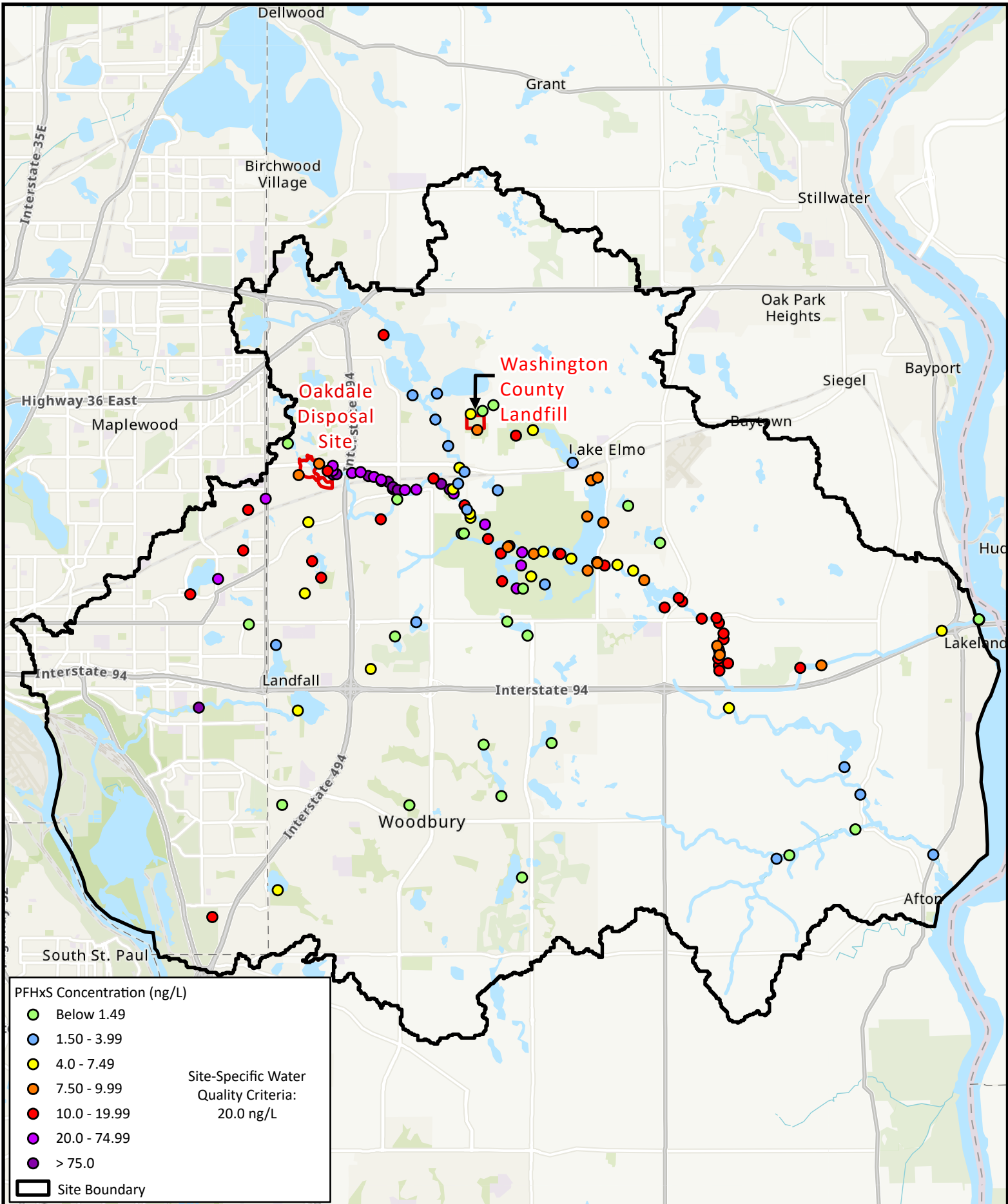
**Figure 45: PFBS Concentration in
Siteside Surface Water
Project 1007 Feasibility Study**

0 1 2 4
Miles

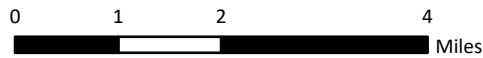


**Figure 46: PFHxA Concentration in
Sitewide Surface Water
Project 1007 Feasibility Study**





**Figure 47: PFHxS Concentration in
Siteside Surface Water
Project 1007 Feasibility Study**



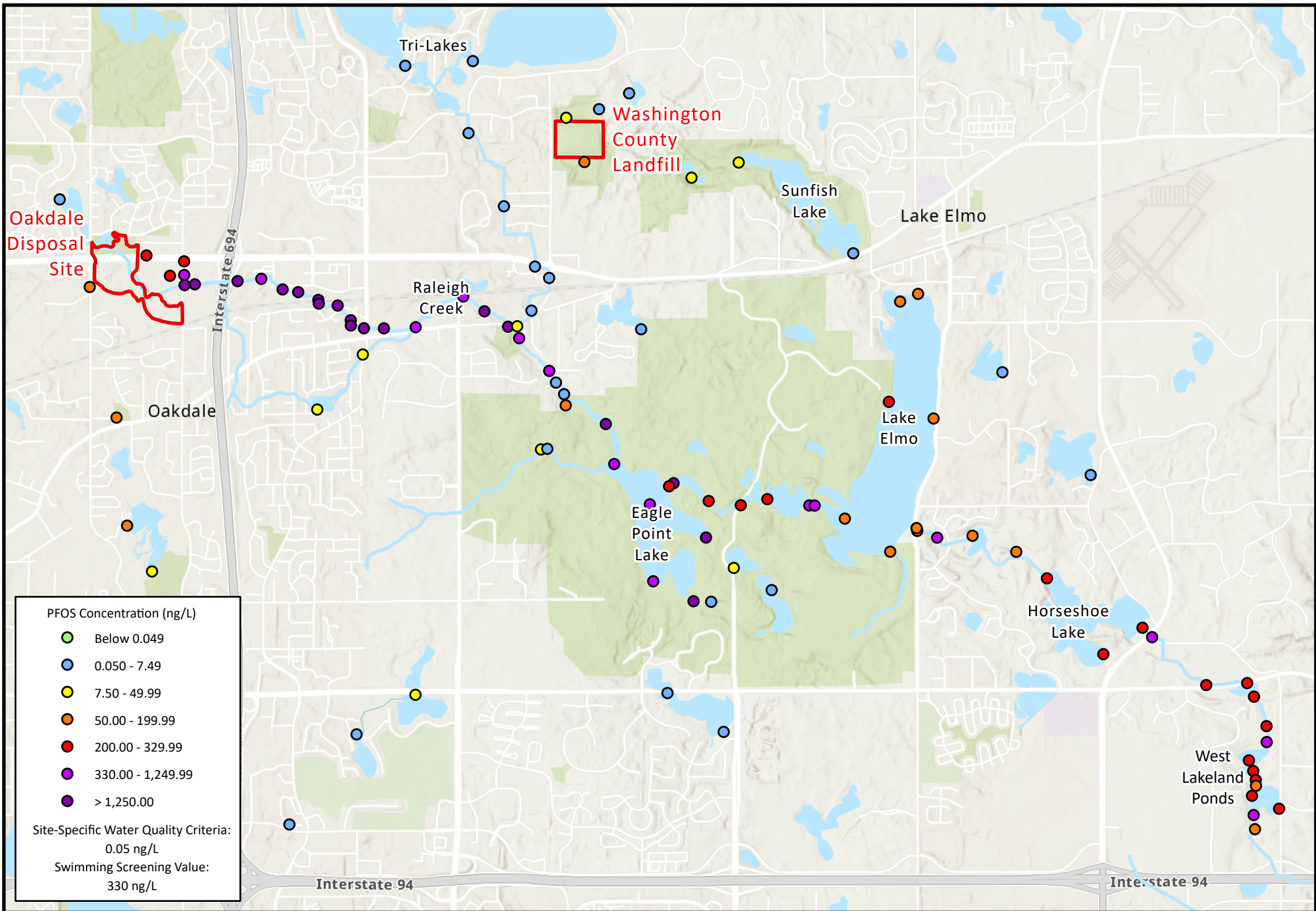
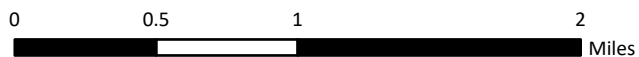


Figure 48: PFOS Concentration in Project 1007 Corridor Surface Water
Project 1007 Feasibility Study



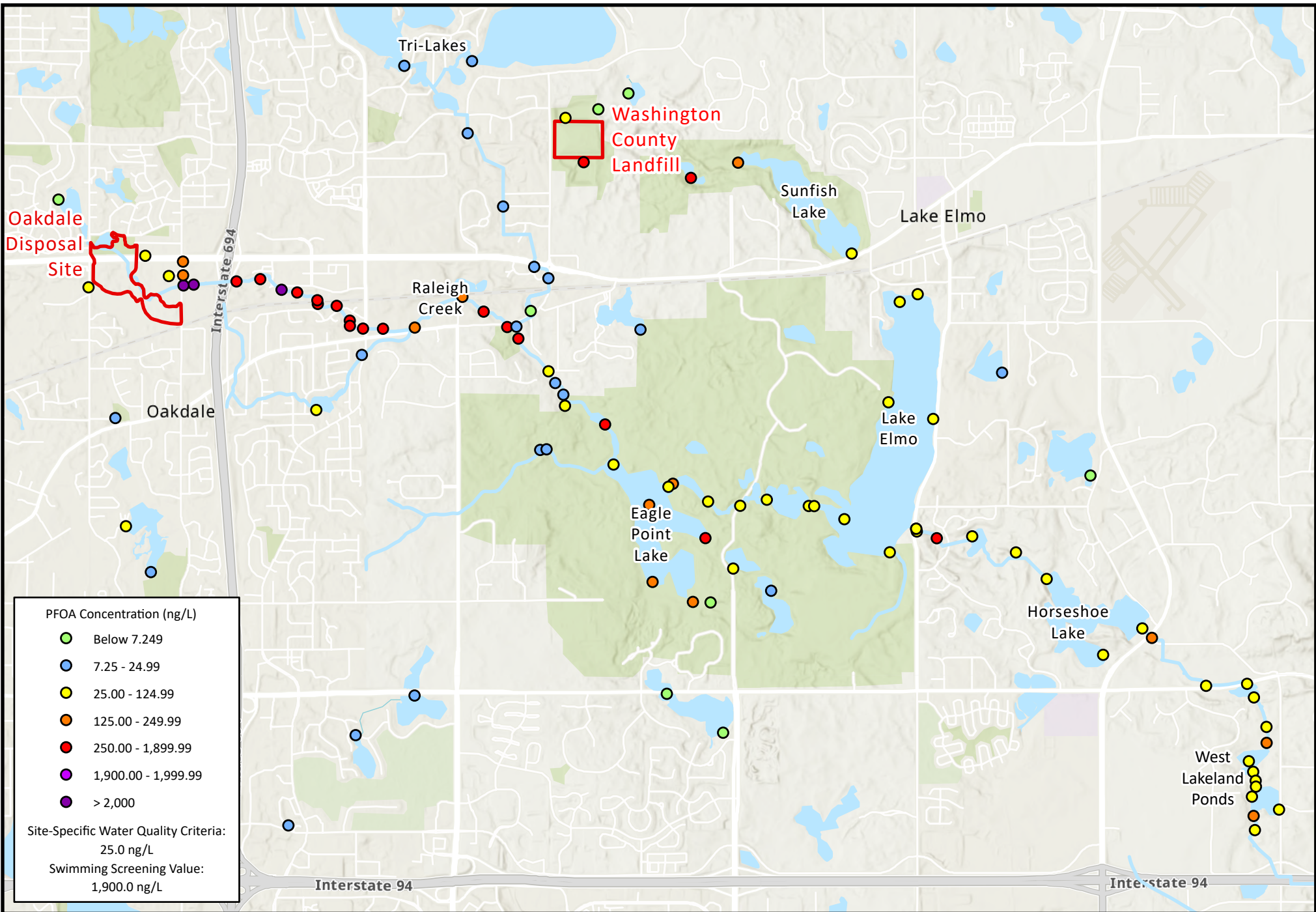
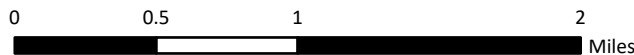
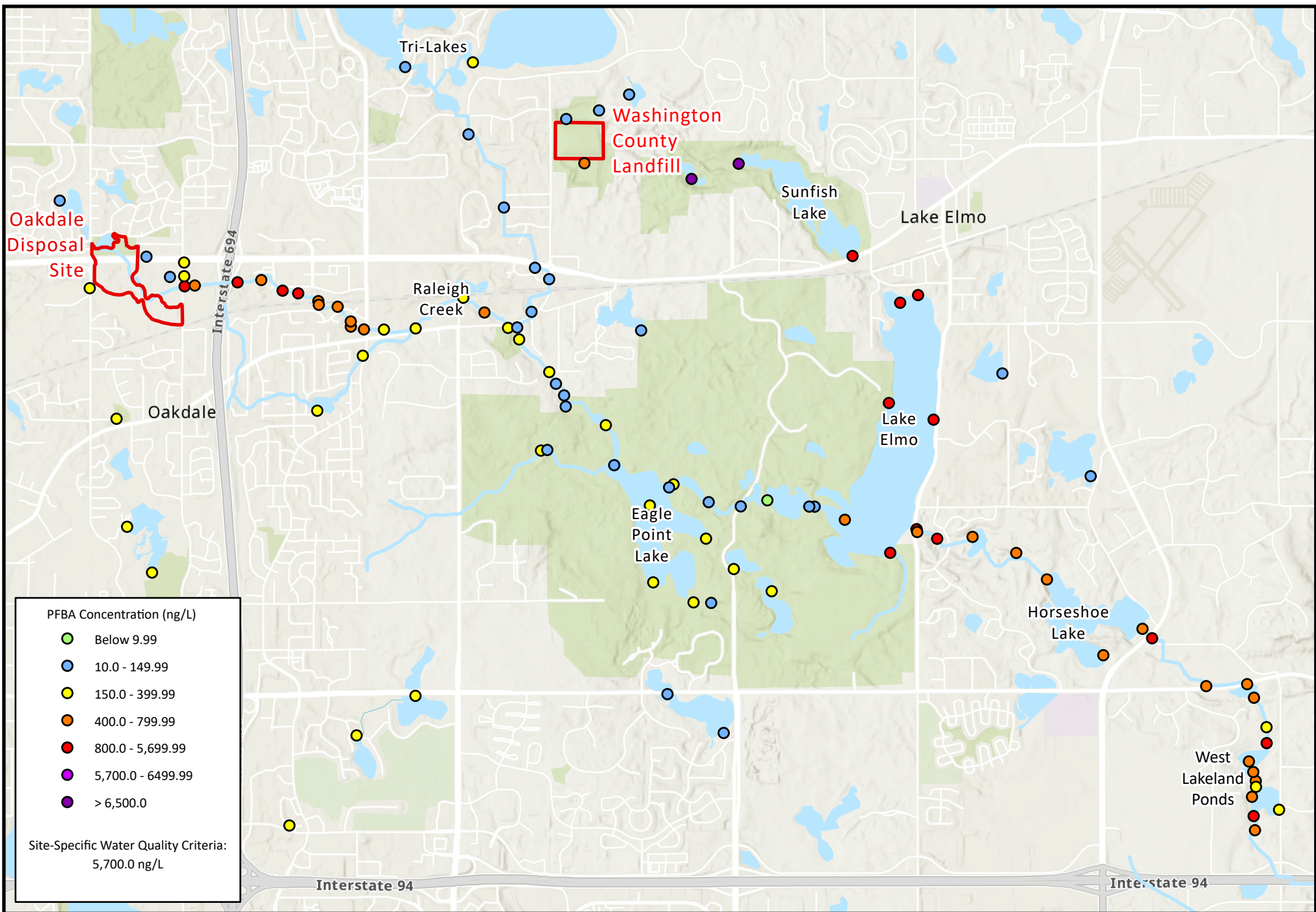


Figure 49: PFOA Concentration in Project 1007 Corridor Surface Water
Project 1007 Feasibility Study





**Figure 50: PFBA Concentration in
Project 1007 Corridor Surface Water
Project 1007 Feasibility Study**

0 0.5 1 2 Miles

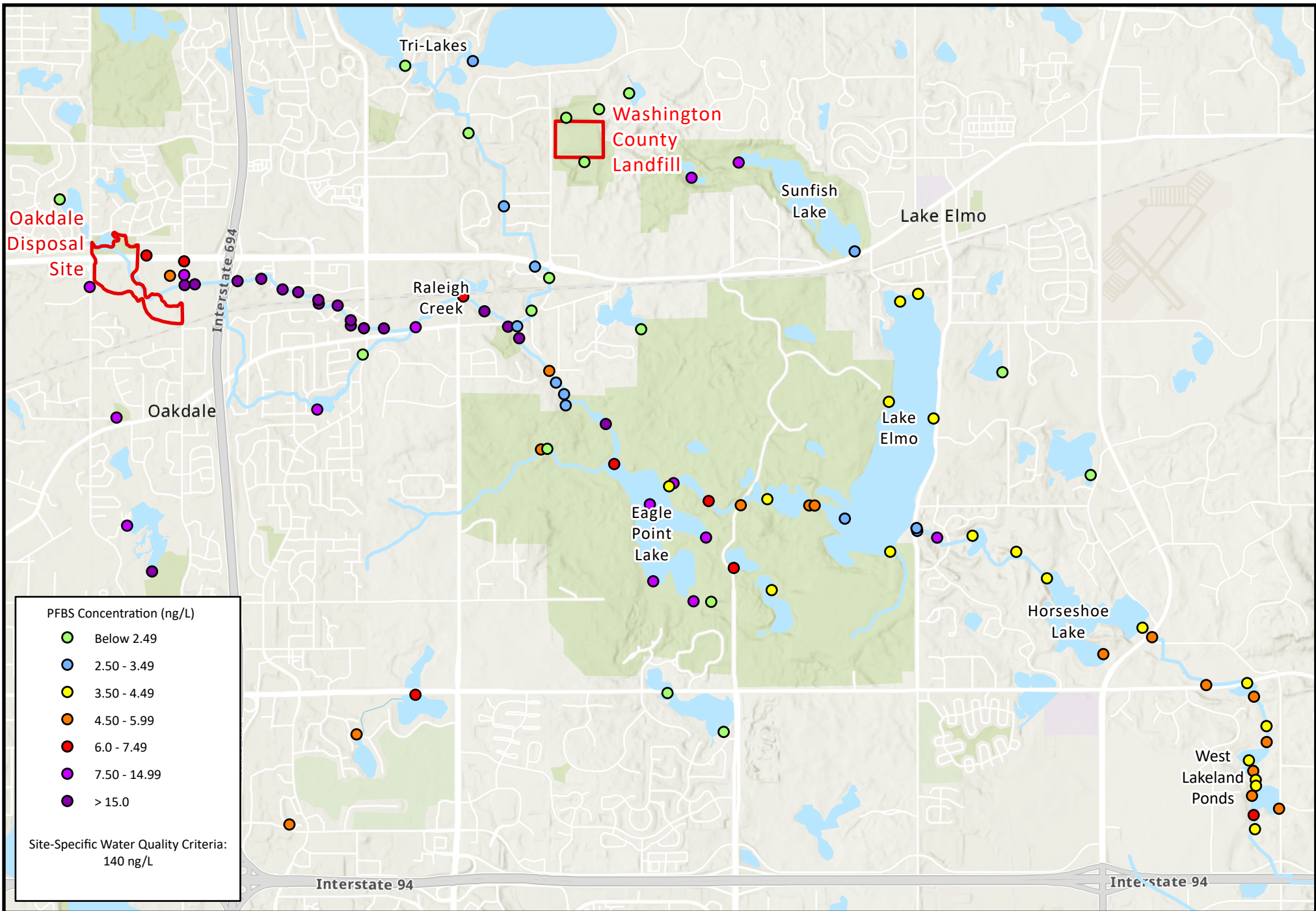


Figure 51: PFBS Concentration in Project 1007 Corridor Surface Water
Project 1007 Feasibility Study

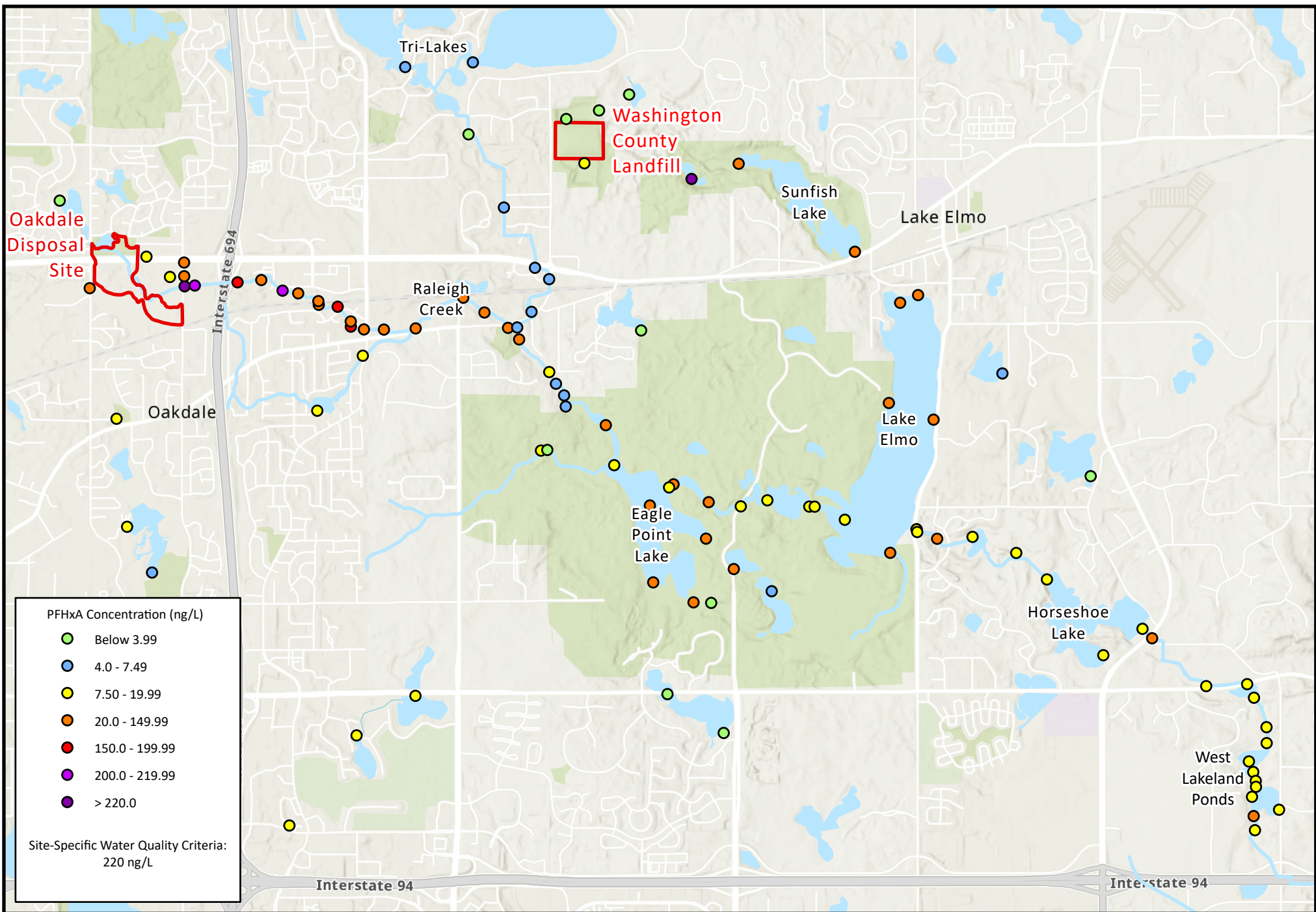
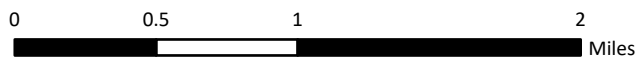


Figure 52: PFHxA Concentration in Project 1007 Corridor Surface Water
Project 1007 Feasibility Study



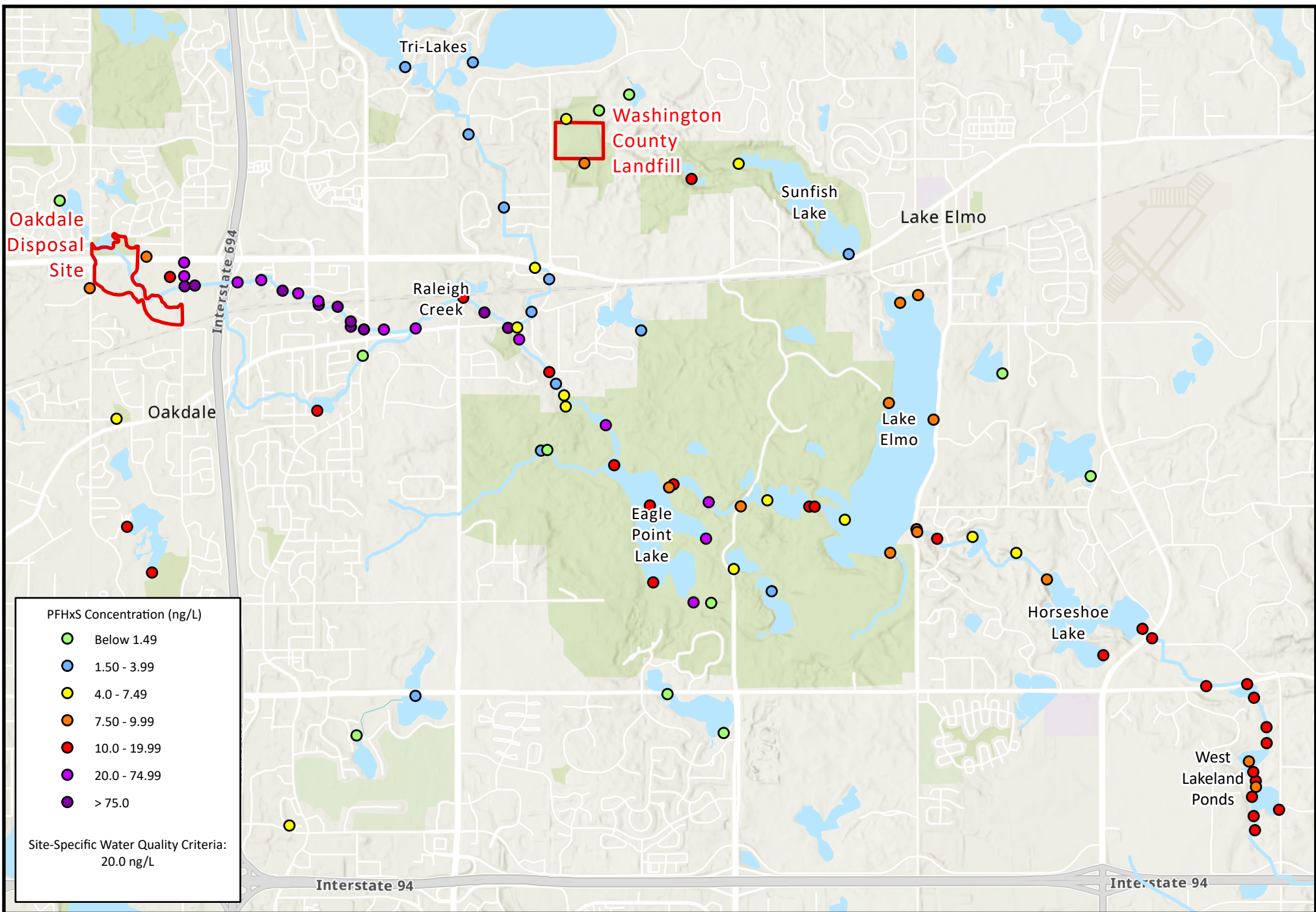
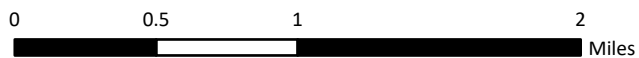
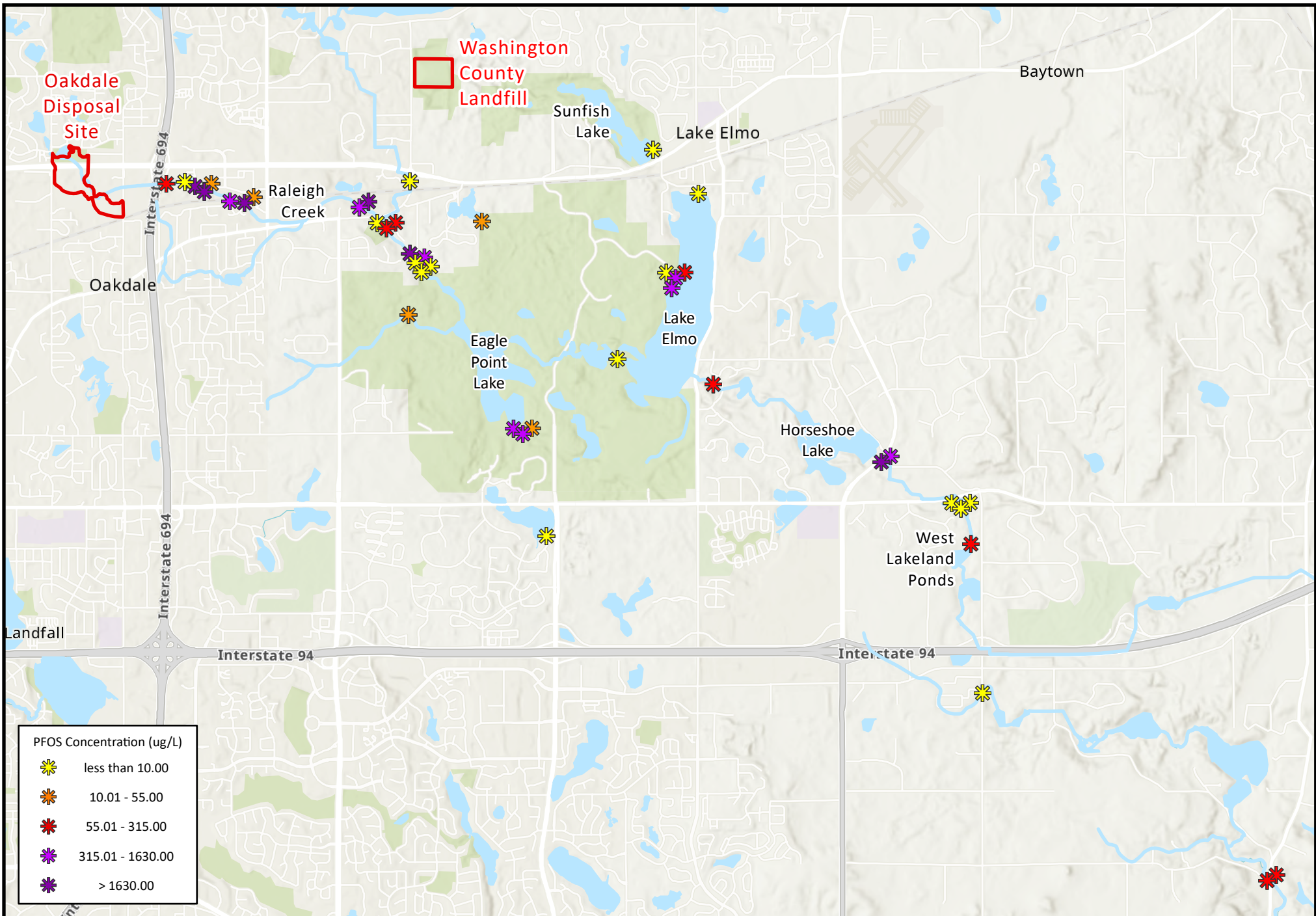
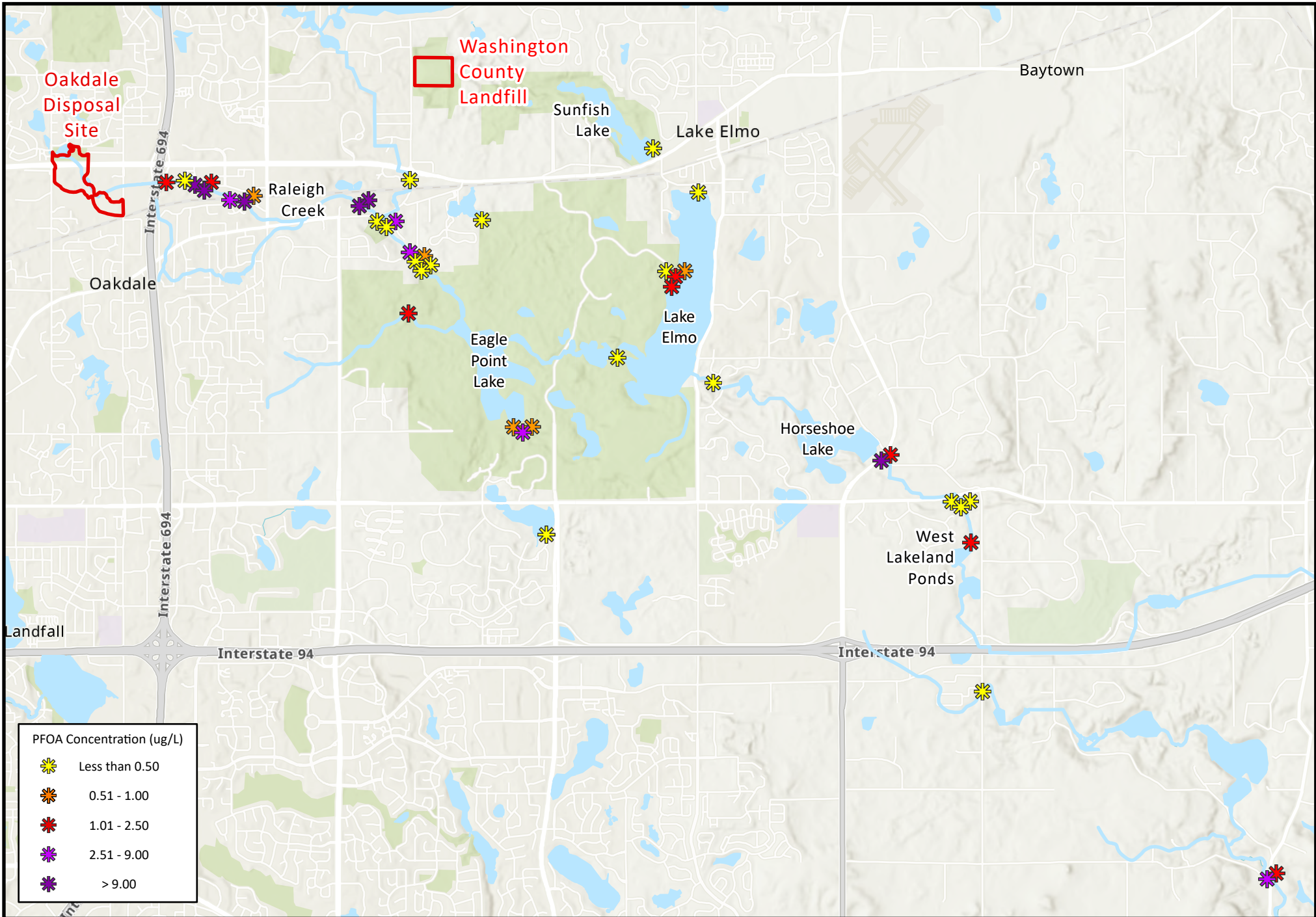


Figure 53: PFHxS Concentration in Project 1007 Corridor Surface Water
Project 1007 Feasibility Study

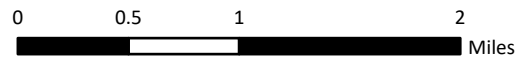


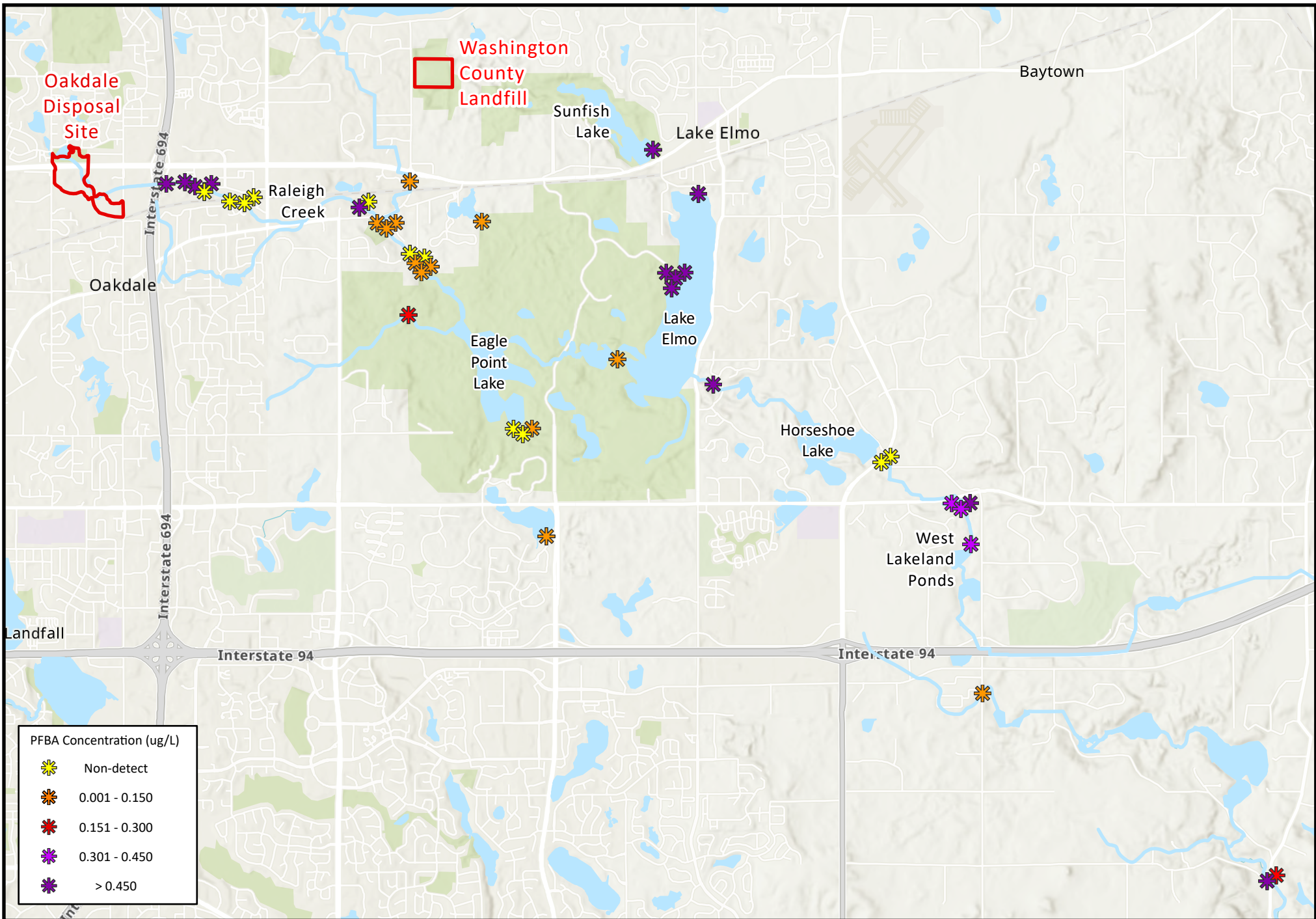


**Figure 54: Foam and Surface Microlayer
PFOS Concentration
Project 1007 Feasibility Study**

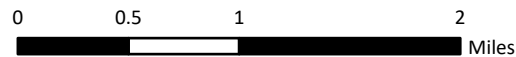


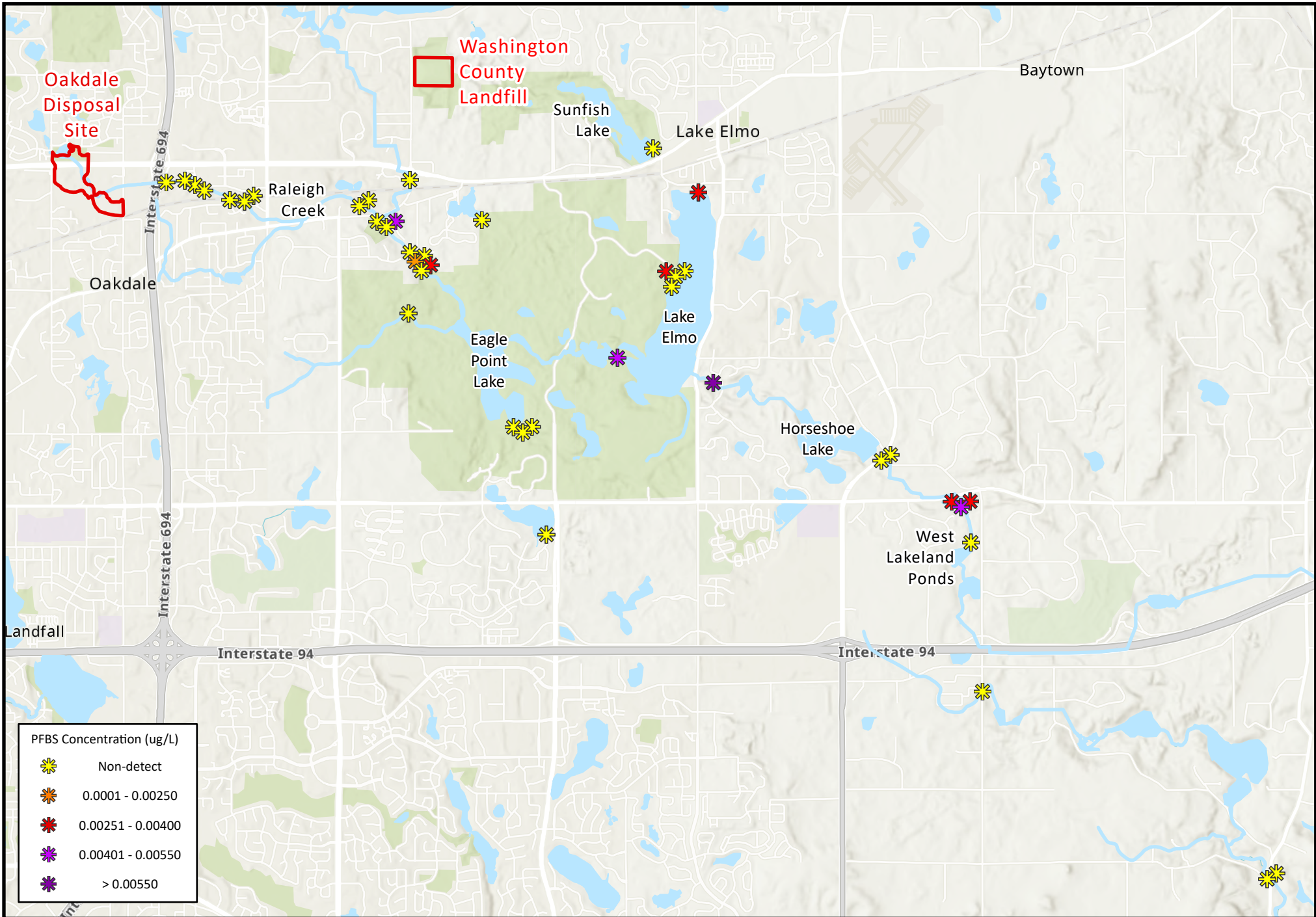
**Figure 55: Foam and Surface Microlayer
PFOA Concentration
Project 1007 Feasibility Study**



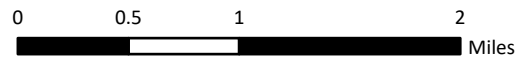


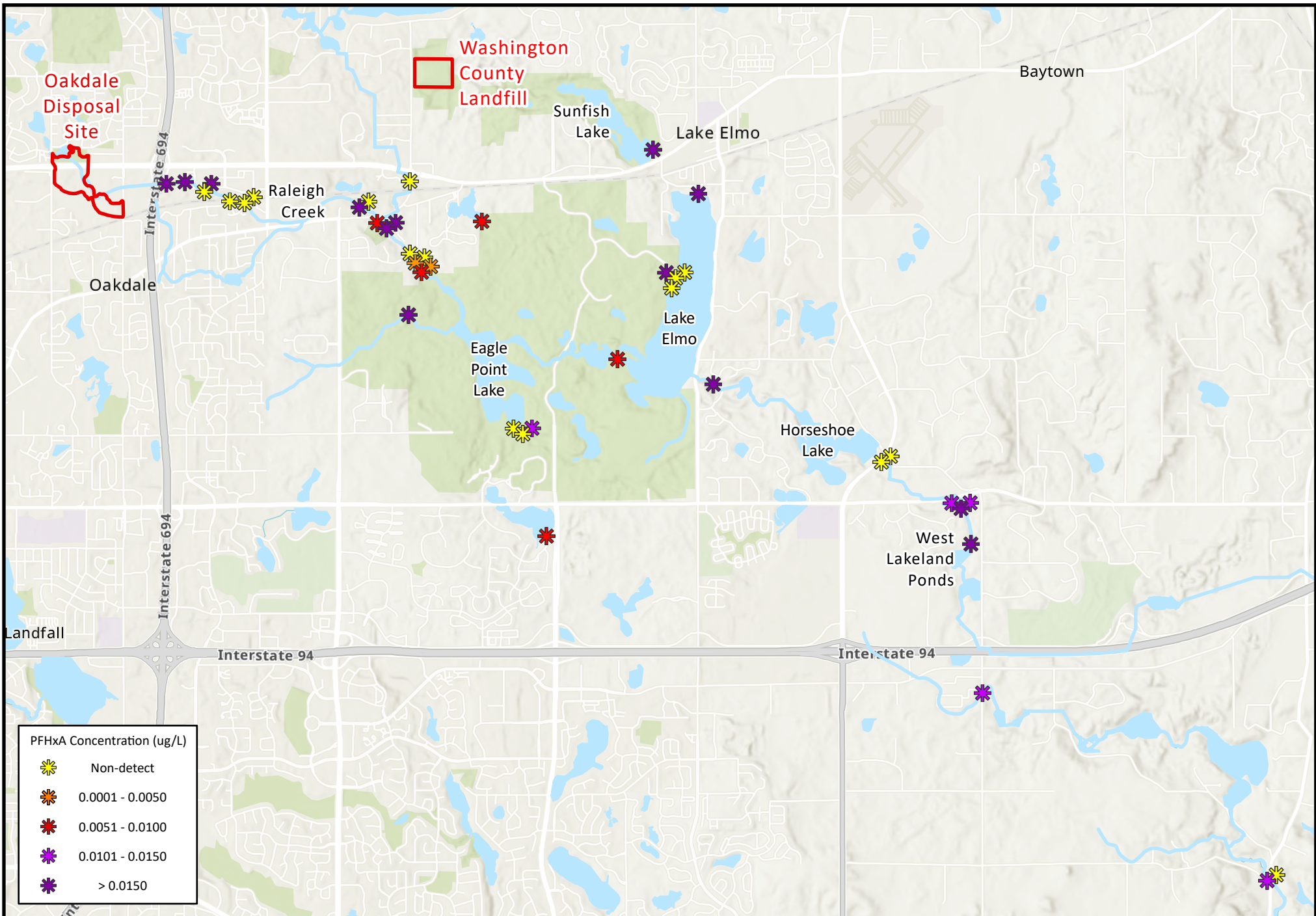
**Figure 56: Foam and Surface Microlayer
PFBA Concentration
Project 1007 Feasibility Study**



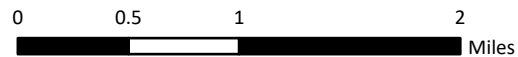


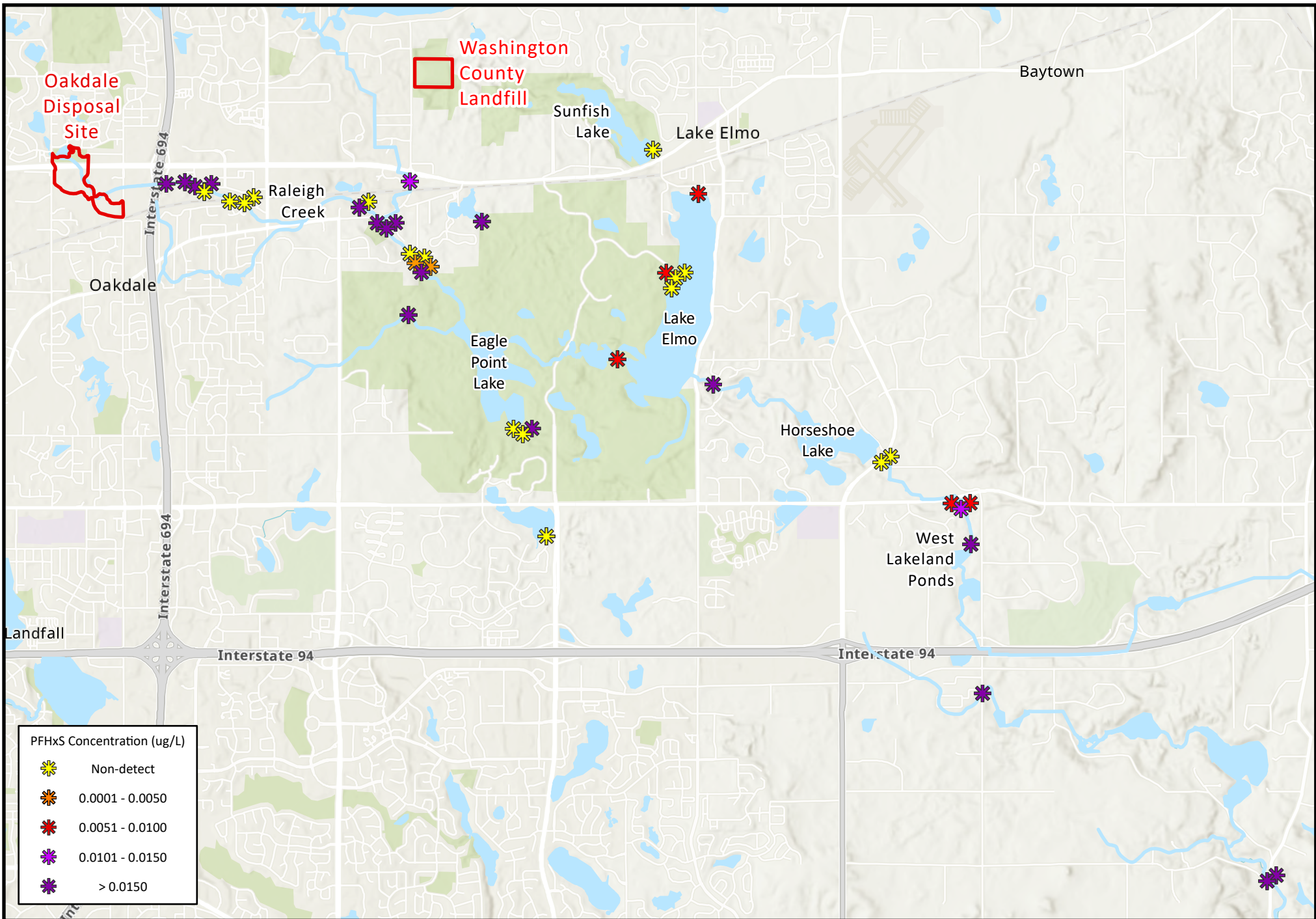
**Figure 57: Foam and Surface Microlayer
PFBS Concentration
Project 1007 Feasibility Study**





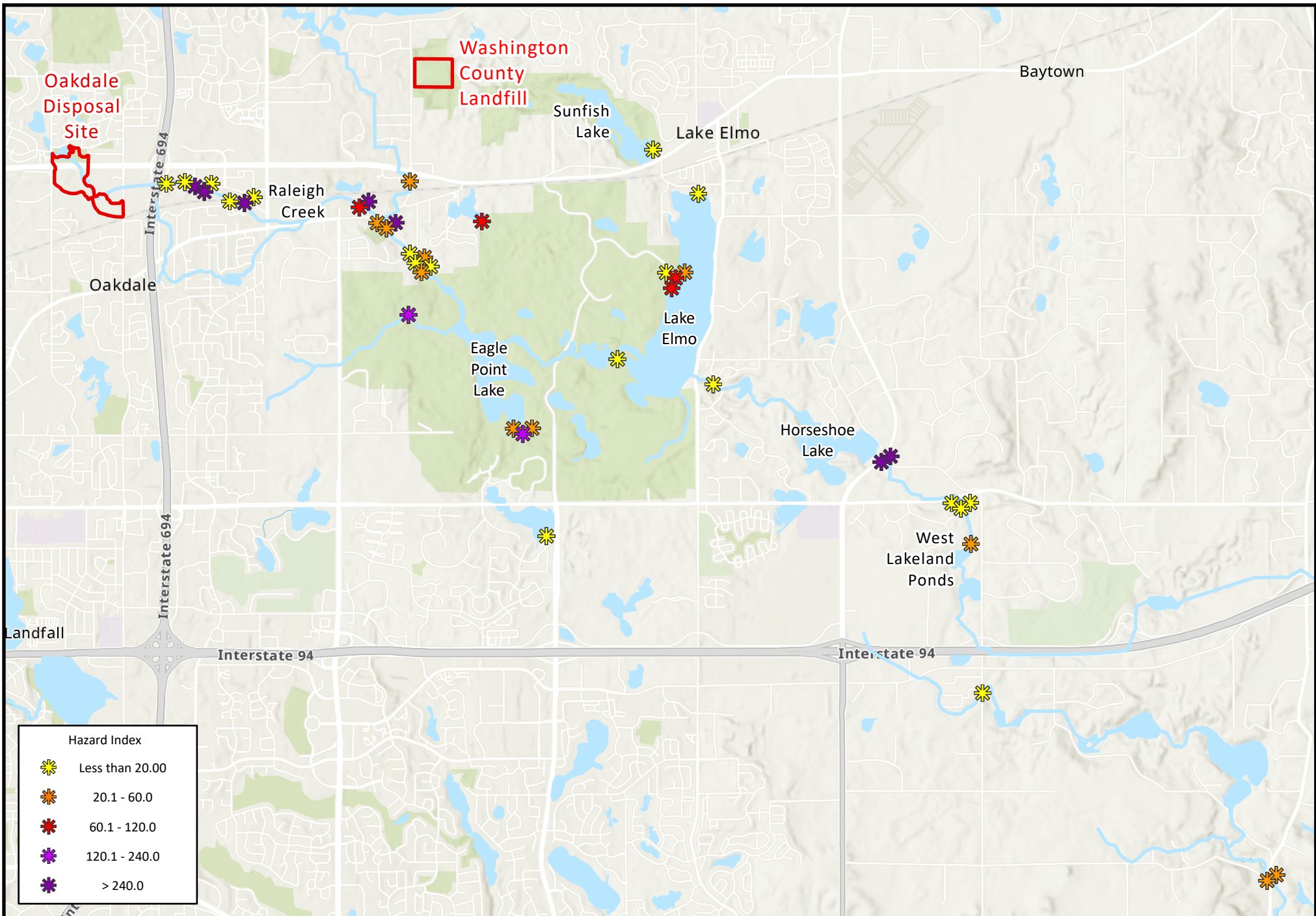
**Figure 58: Foam and Surface Microlayer
PFHxA Concentration
Project 1007 Feasibility Study**



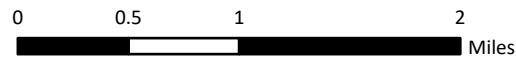


**Figure 59: Foam and Surface Microlayer
PFHxS Concentration
Project 1007 Feasibility Study**

0 0.5 1 2 Miles



**Figure 60: Foam and Surface Microlayer
Hazard Index**
Project 1007 Feasibility Study



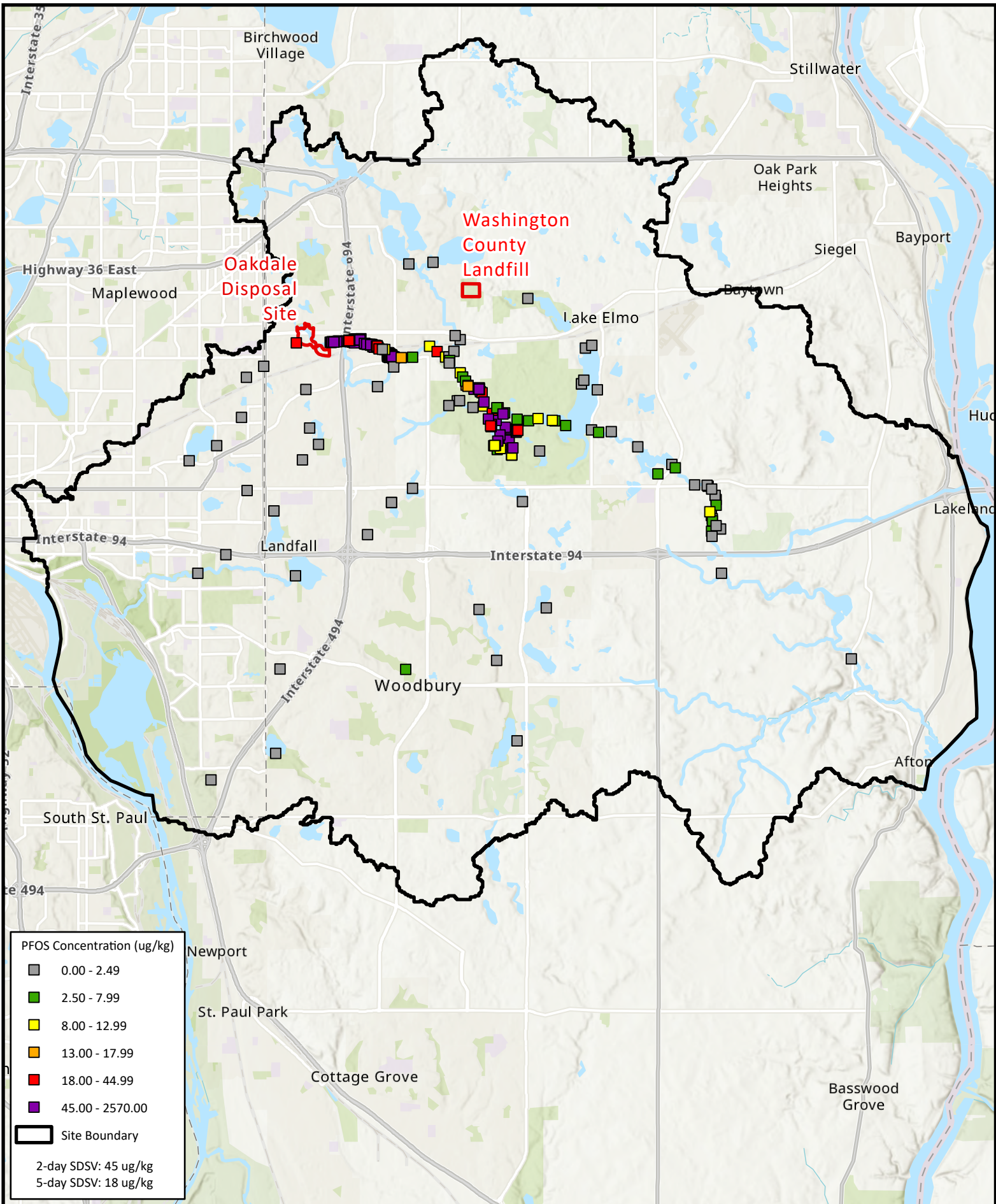
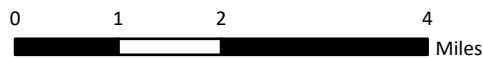


Figure 61: PFOS Concentration in Sitewide Sediment
Project 1007 Feasibility Study



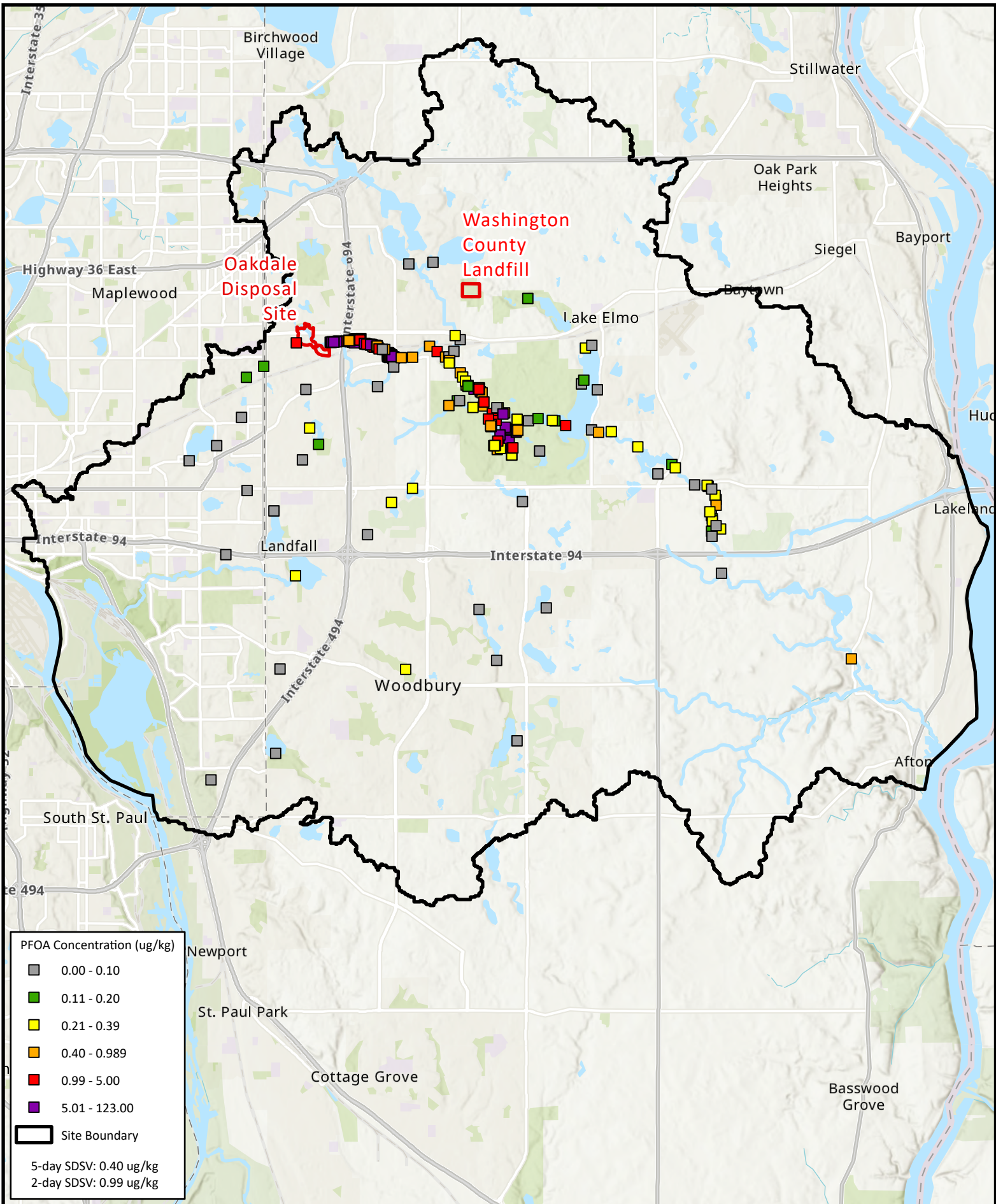
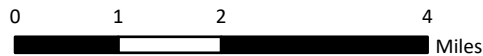


Figure 62: PFOA Concentration in Sitewide Sediment
Project 1007 Feasibility Study



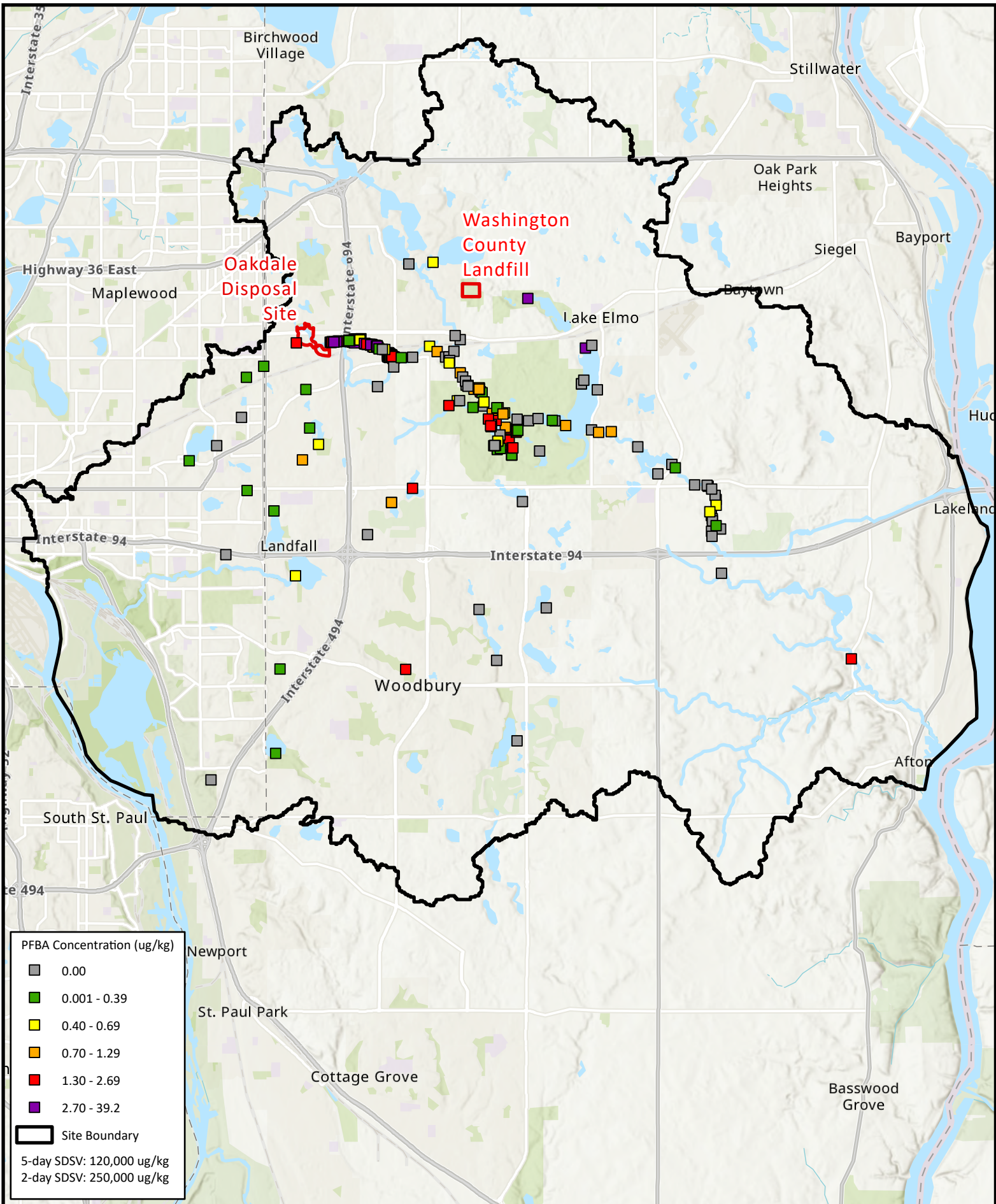
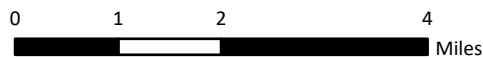


Figure 63: PFBA Concentration in Sitewide Sediment

Project 1007 Feasibility Study

MINNESOTA POLLUTION CONTROL AGENCY



AECOM

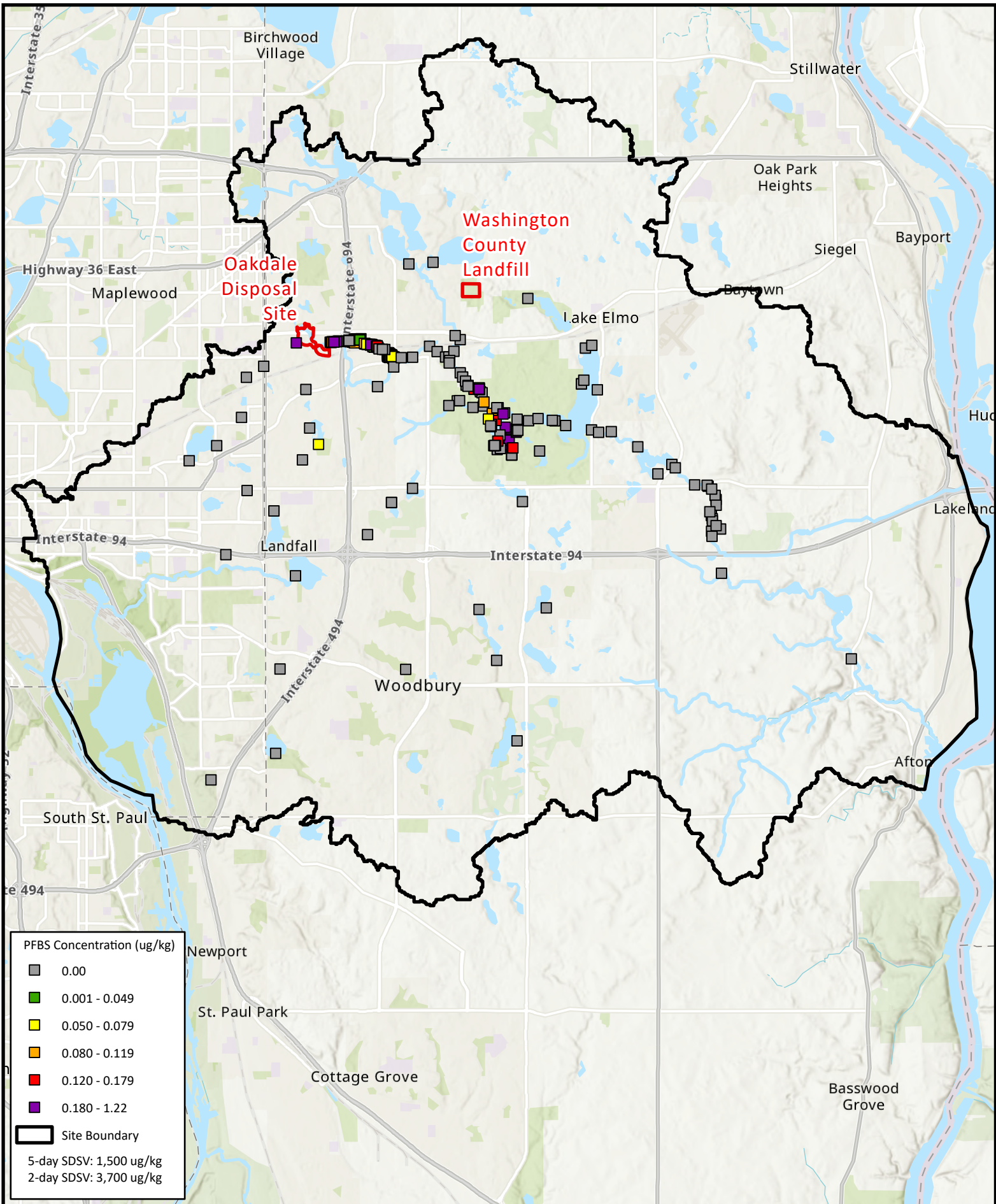
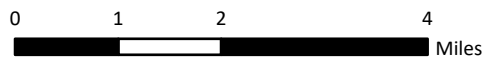


Figure 64: PFBS Concentration in Sitewide Sediment

Project 1007 Feasibility Study

MINNESOTA POLLUTION CONTROL AGENCY



AECOM

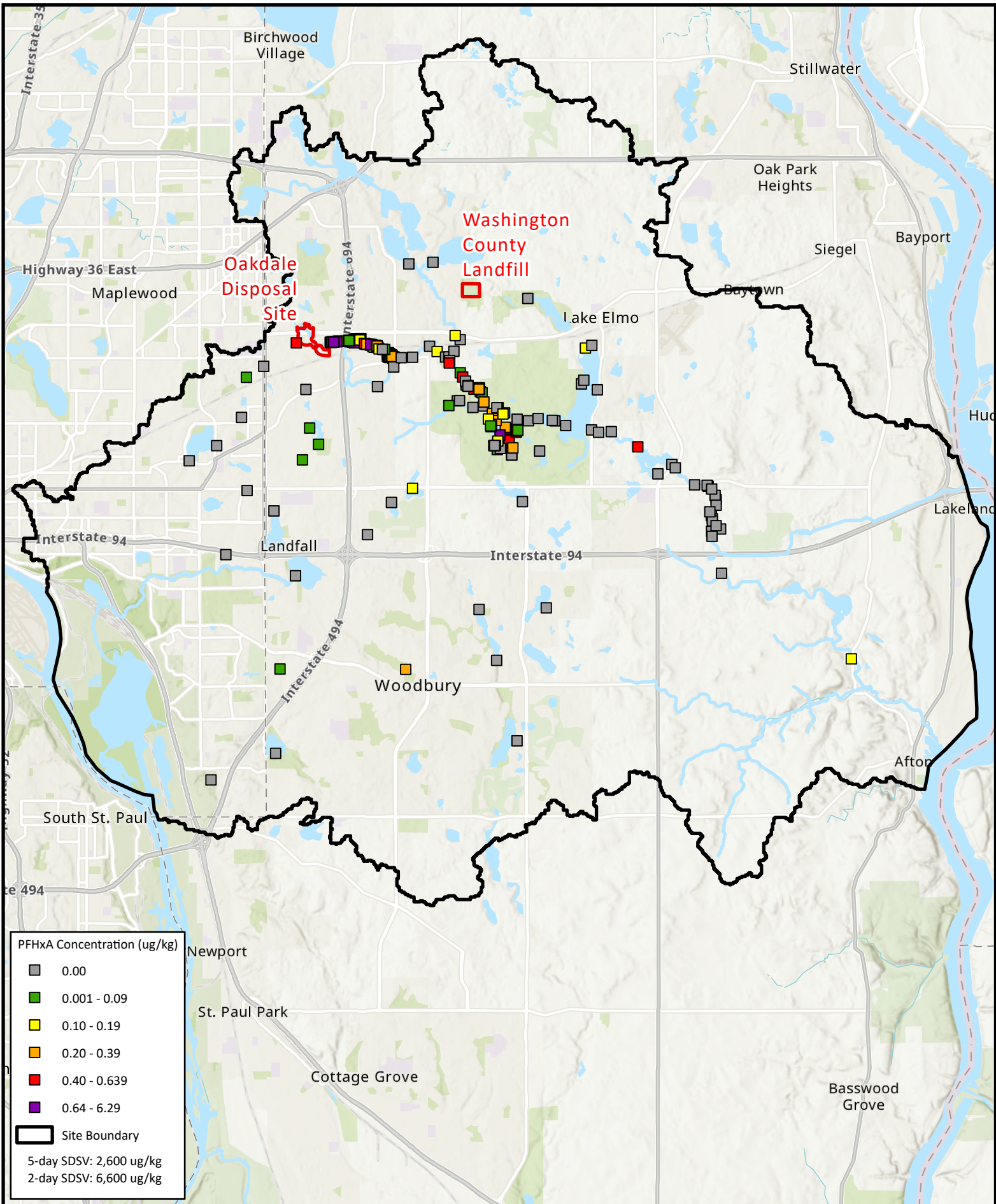
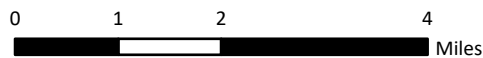


Figure 65: PFHxA Concentration in Sitewide Sediment
Project 1007 Feasibility Study



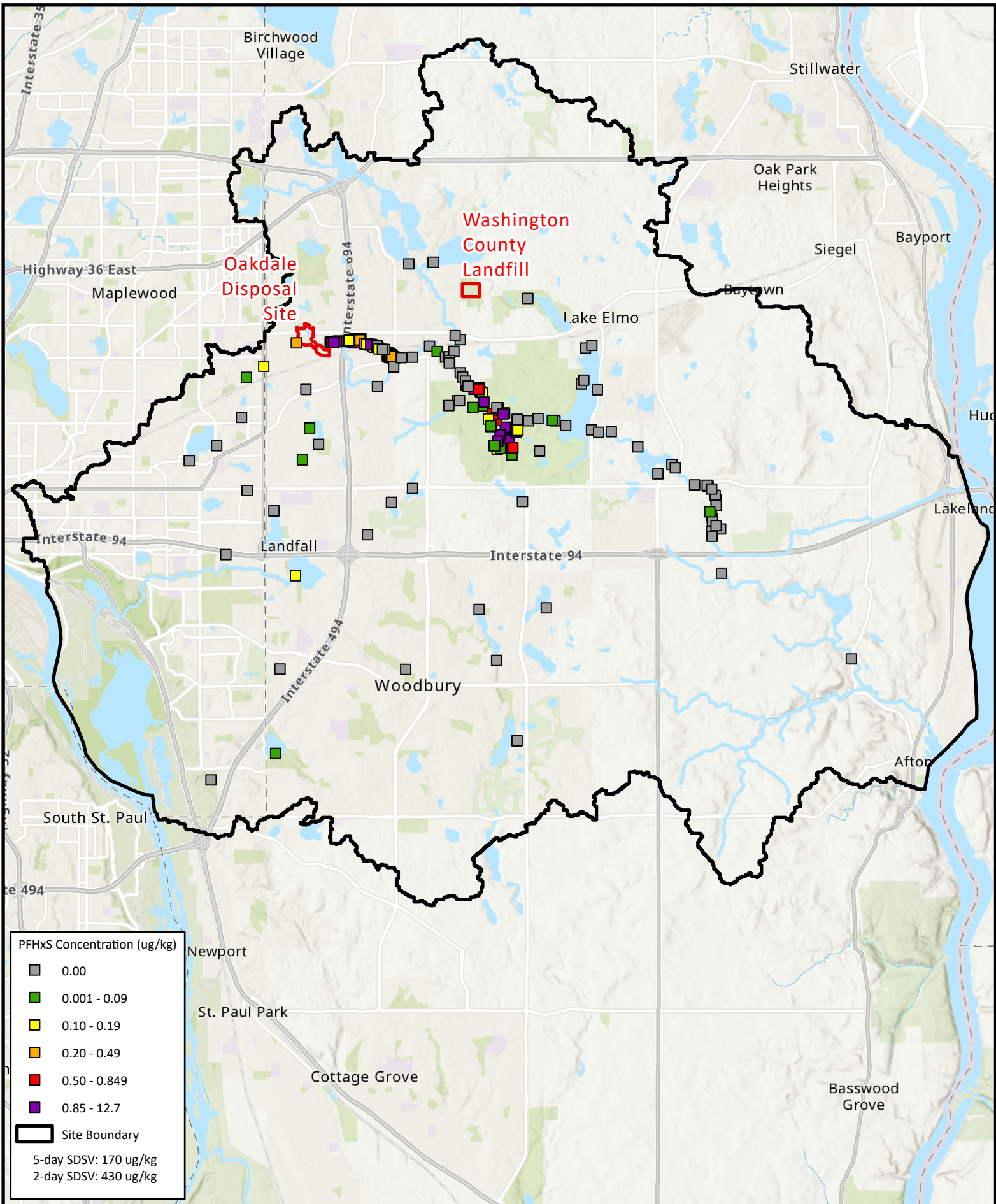
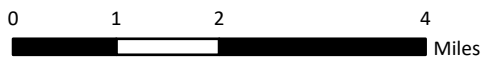


Figure 66: PFHxS Concentration in Sitewide Sediment
Project 1007 Feasibility Study



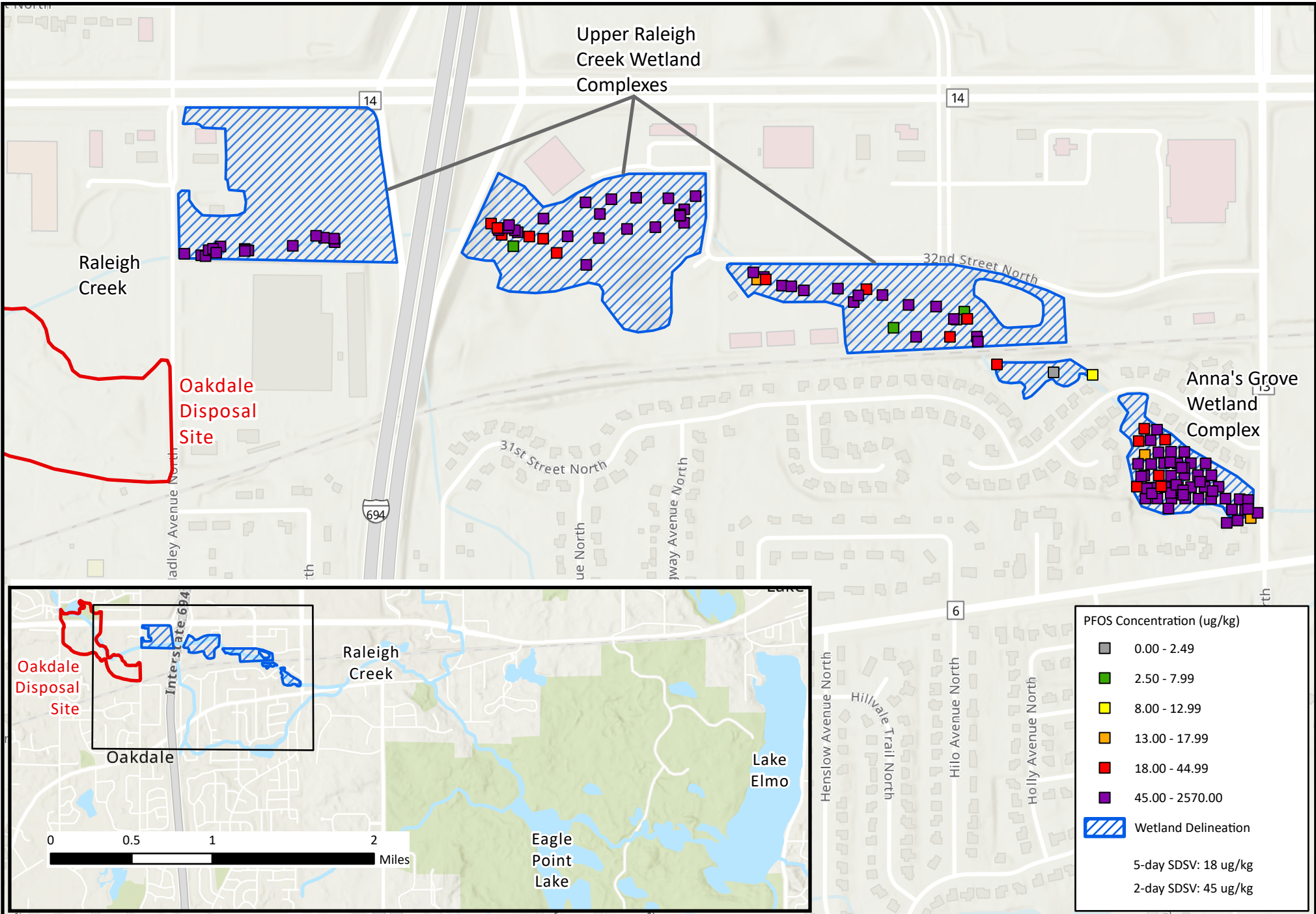
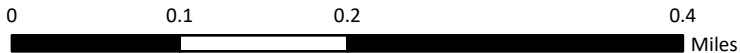


Figure 67: PFOS Concentration in Raleigh Creek Wetland Complex Sediment

Project 1007 Feasibility Study



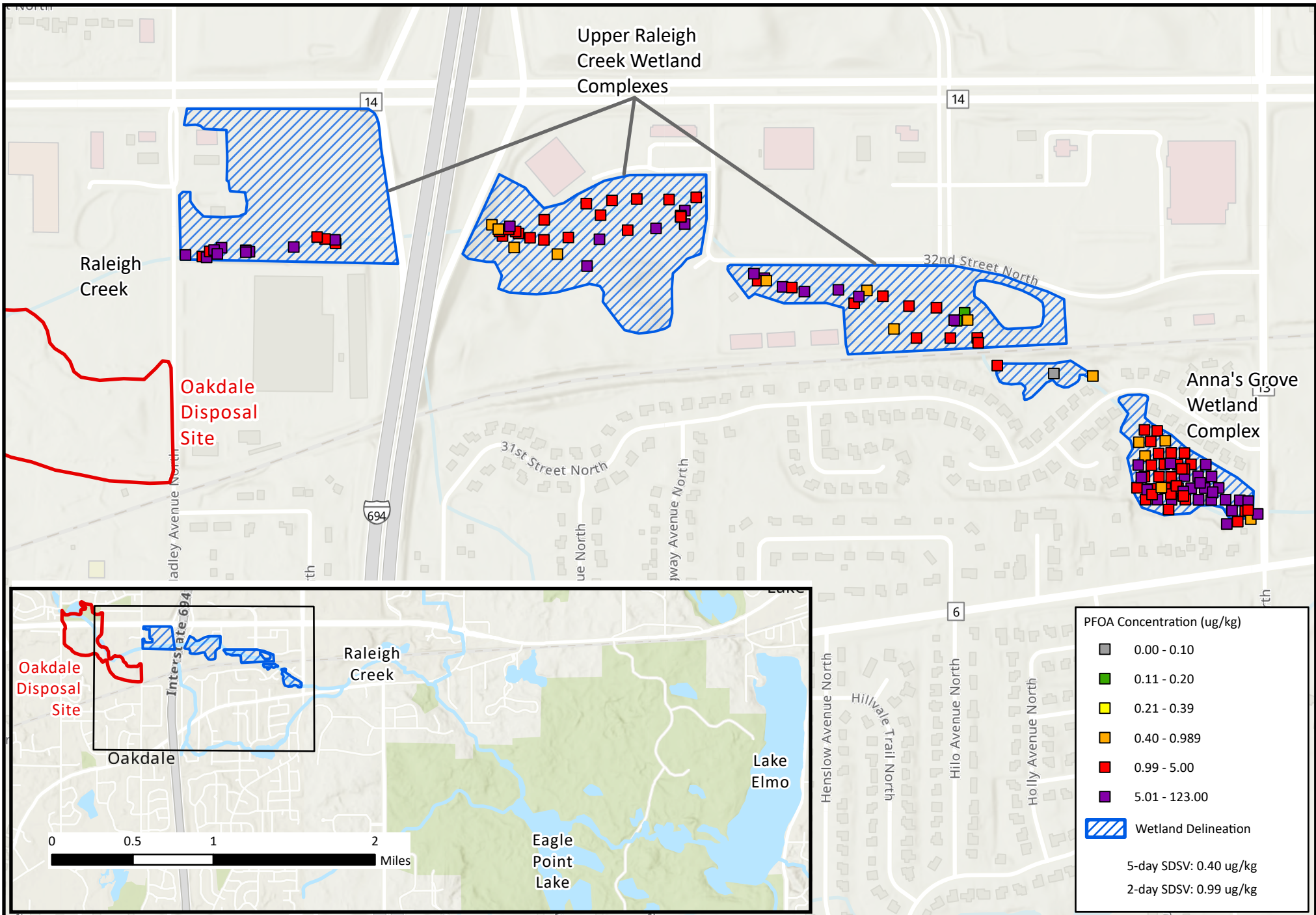
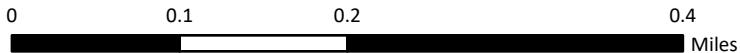


Figure 68: PFOA Concentration in Raleigh Creek Wetland Complex Sediment

Project 1007 Feasibility Study



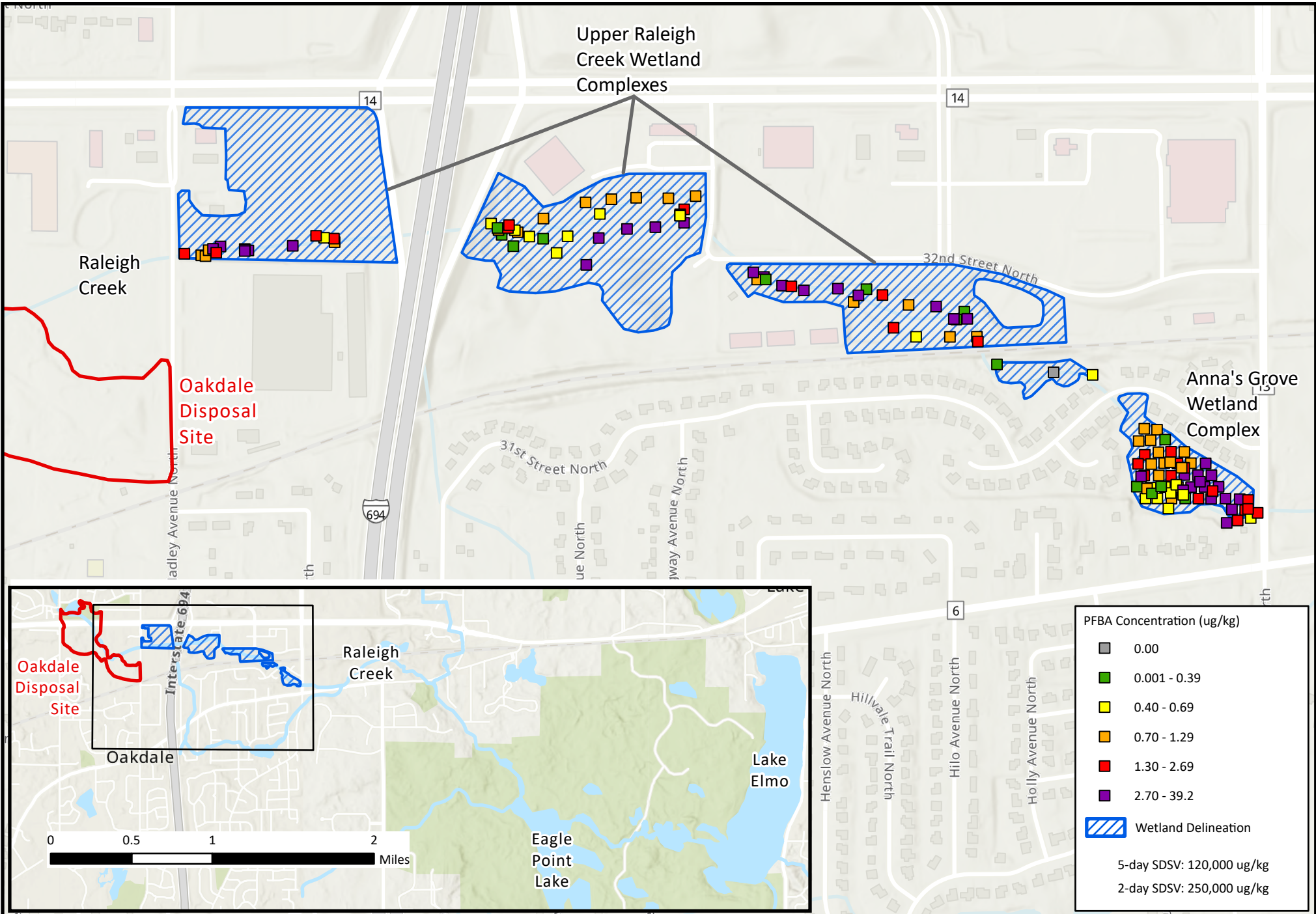
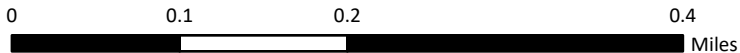


Figure 69: PFBA Concentration in Raleigh Creek Wetland Complex Sediment

Project 1007 Feasibility Study



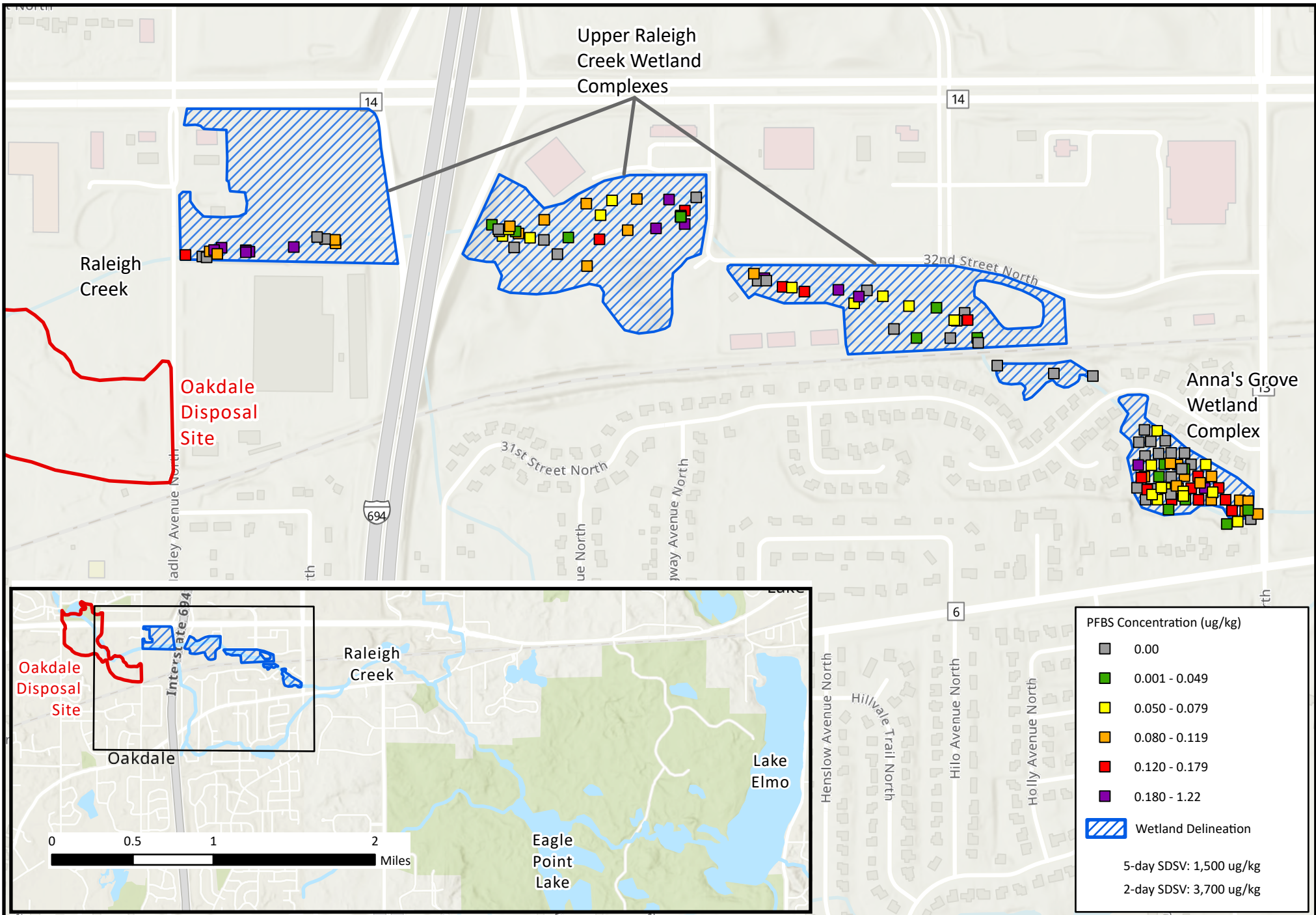


Figure 70: PFBS Concentration in Raleigh Creek Wetland Complex Sediment
Project 1007 Feasibility Study

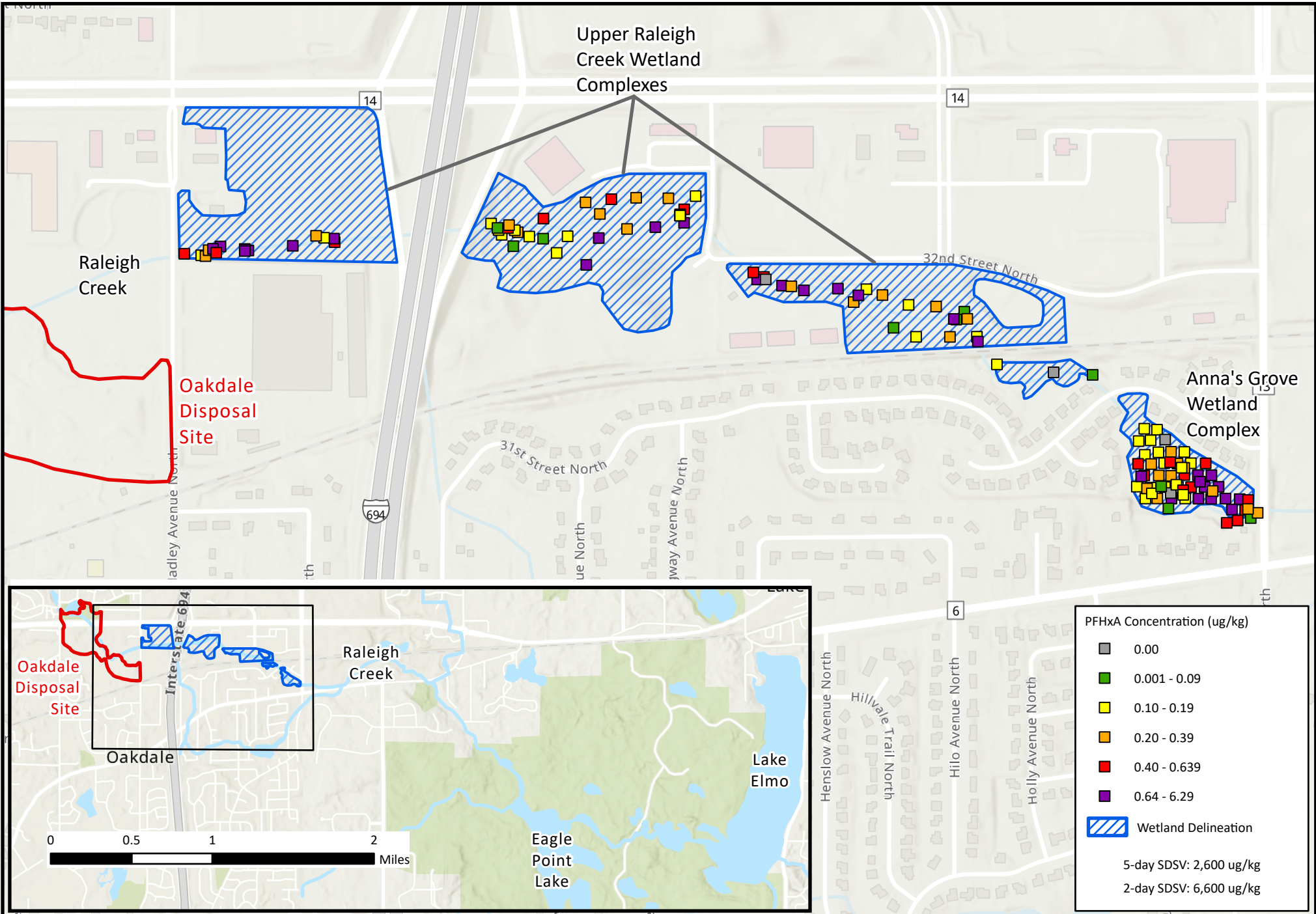
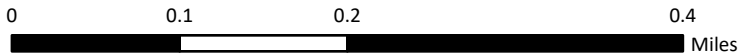


Figure 71: PFHxA Concentration in Raleigh Creek Wetland Complex Sediment
Project 1007 Feasibility Study



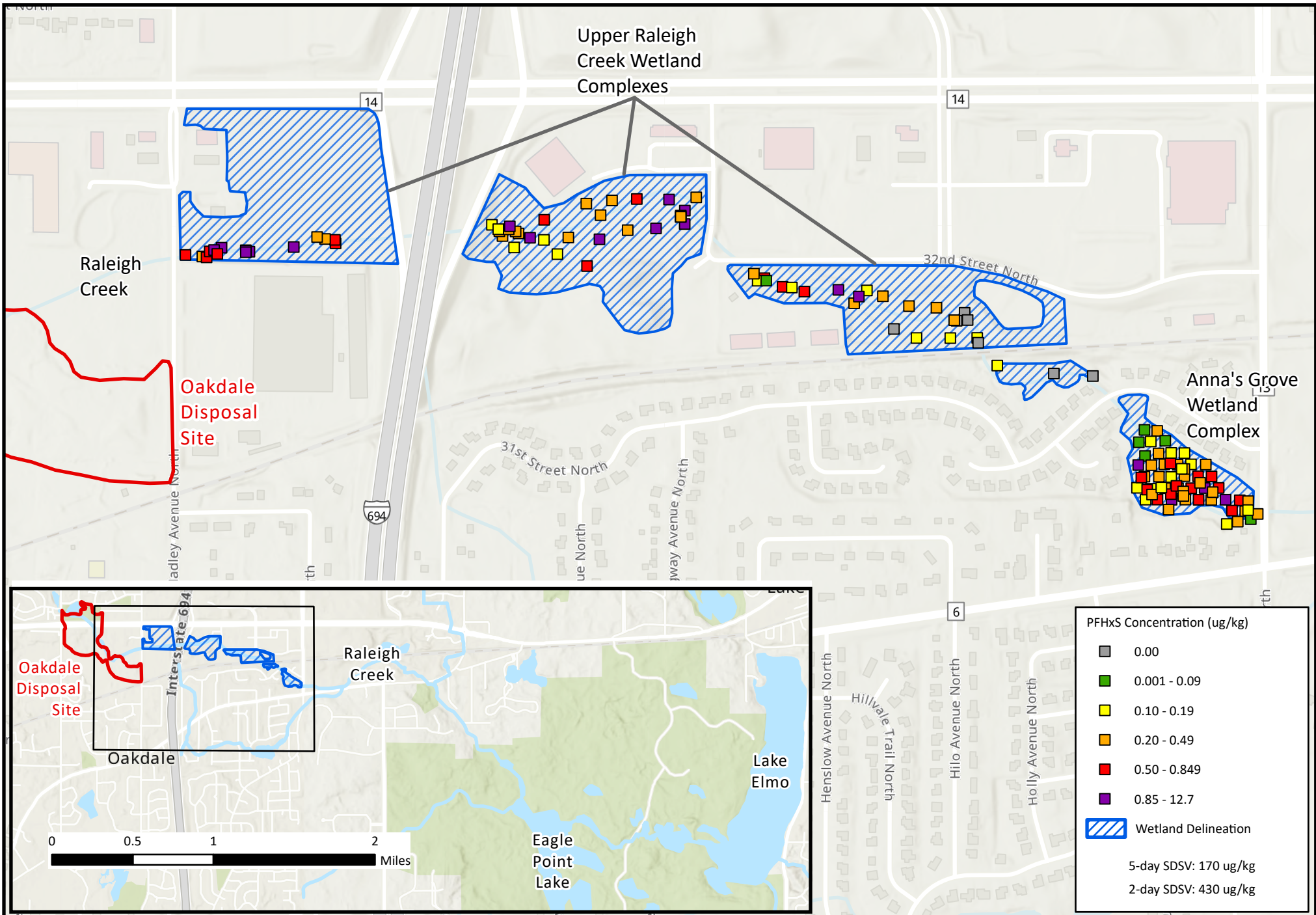
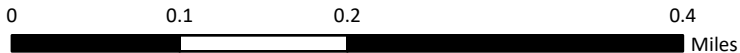


Figure 72: PFHxS Concentration in Raleigh Creek Wetland Complex Sediment

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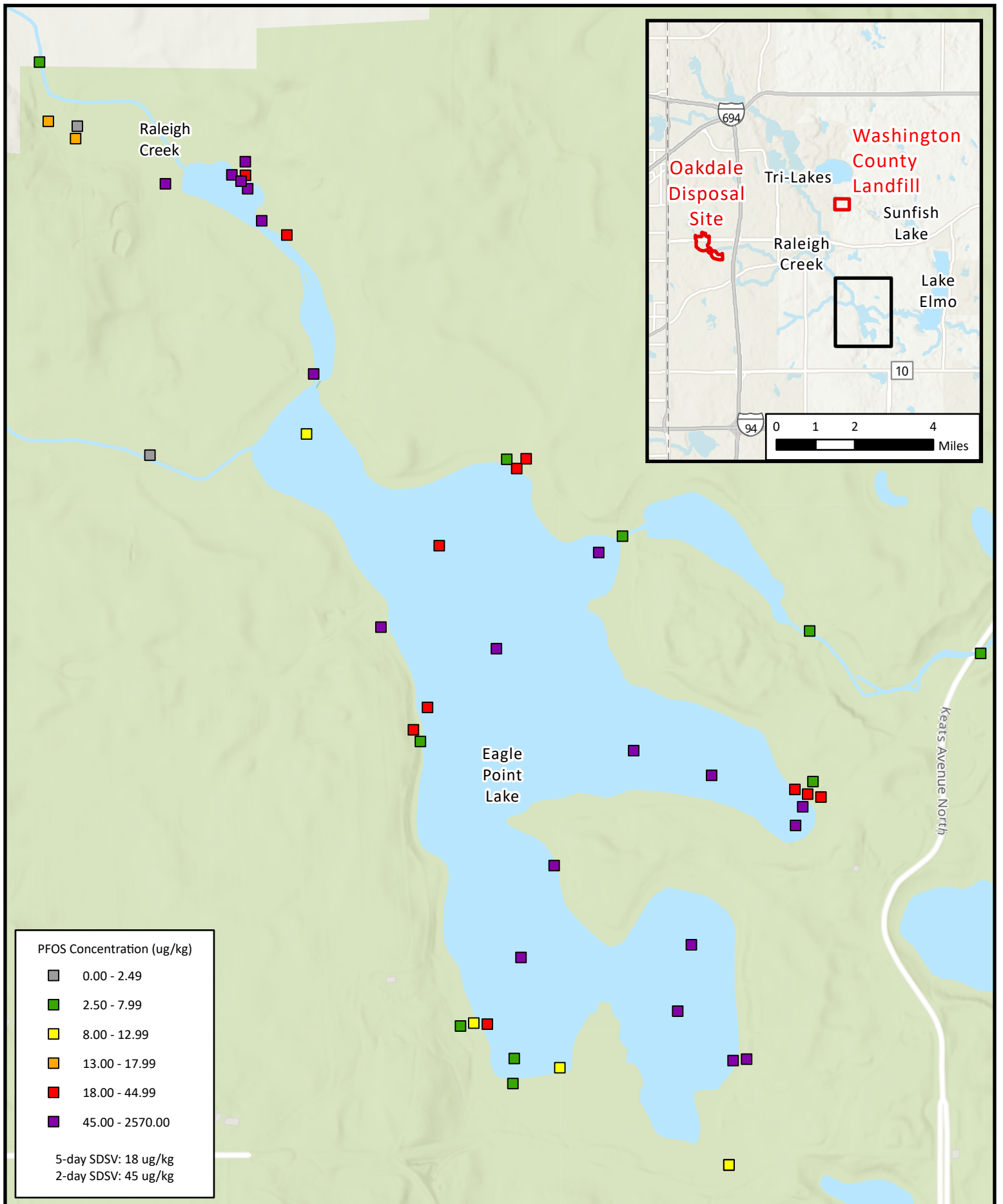
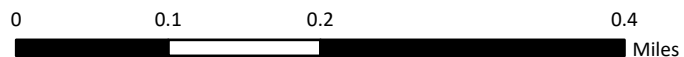


Figure 73: PFOS Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



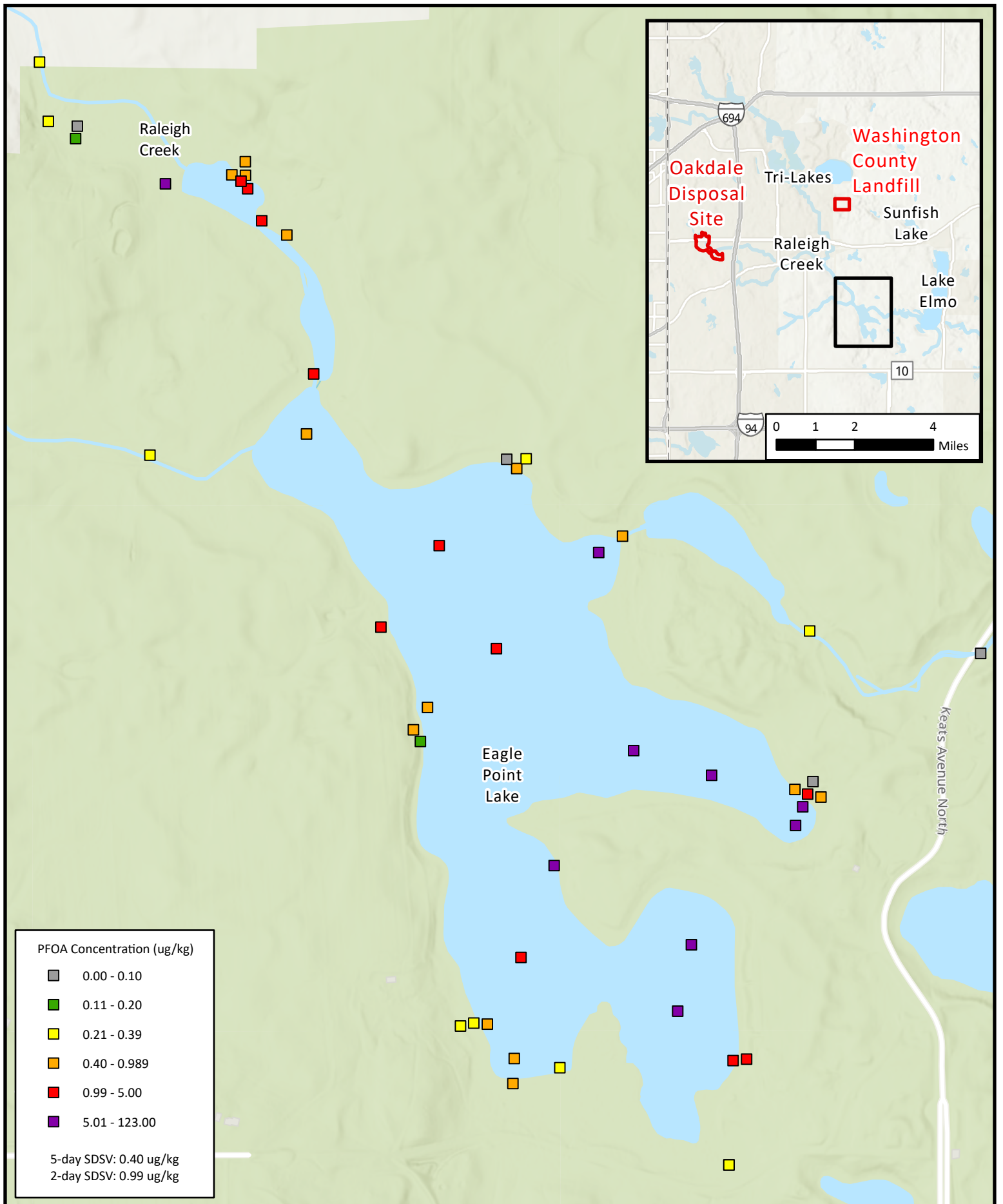
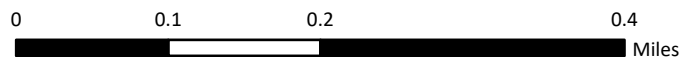


Figure 74: PFOA Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



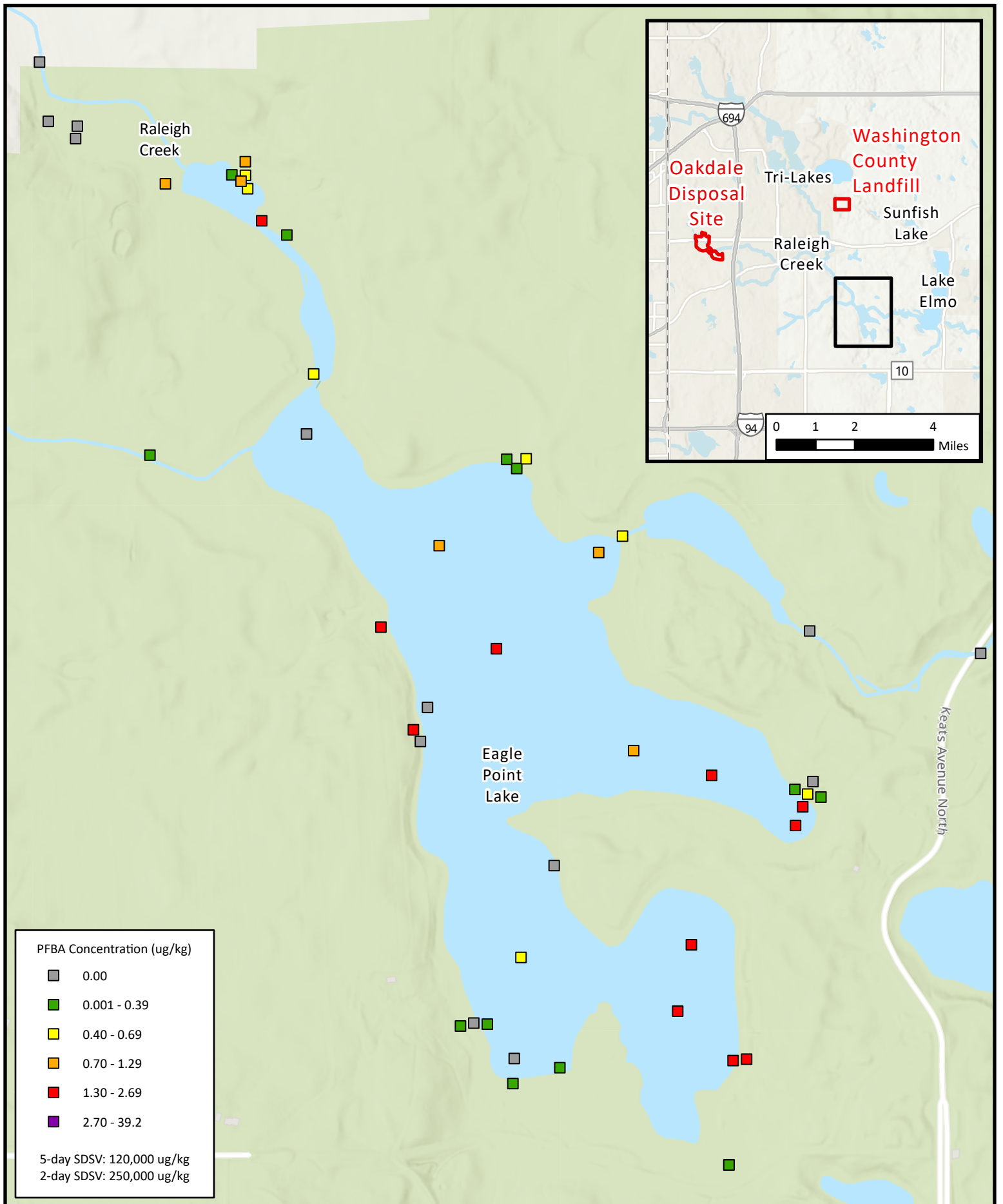
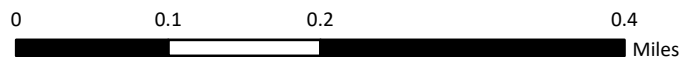


Figure 75: PFBA Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



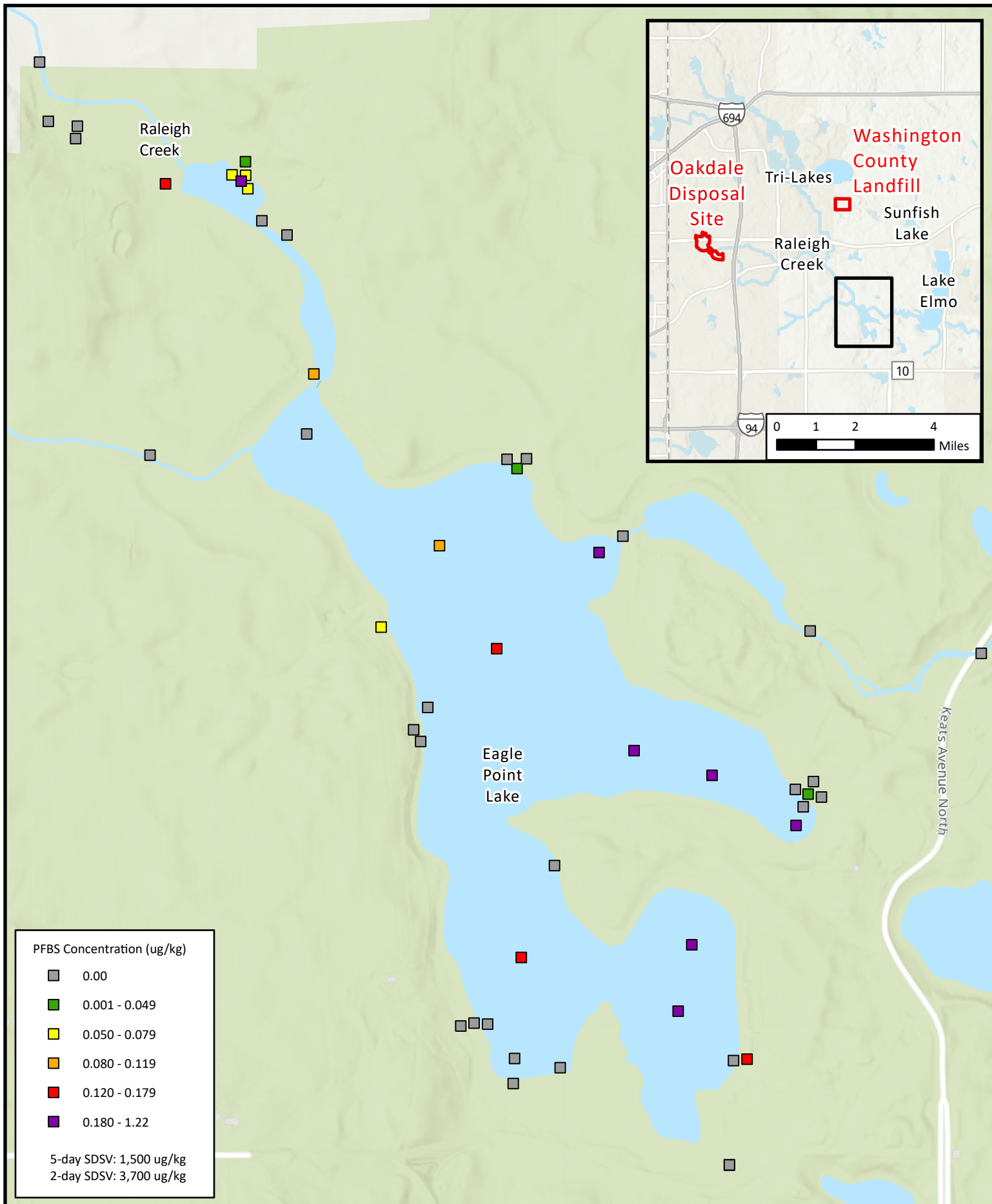
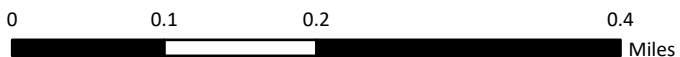


Figure 76: PFBS Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



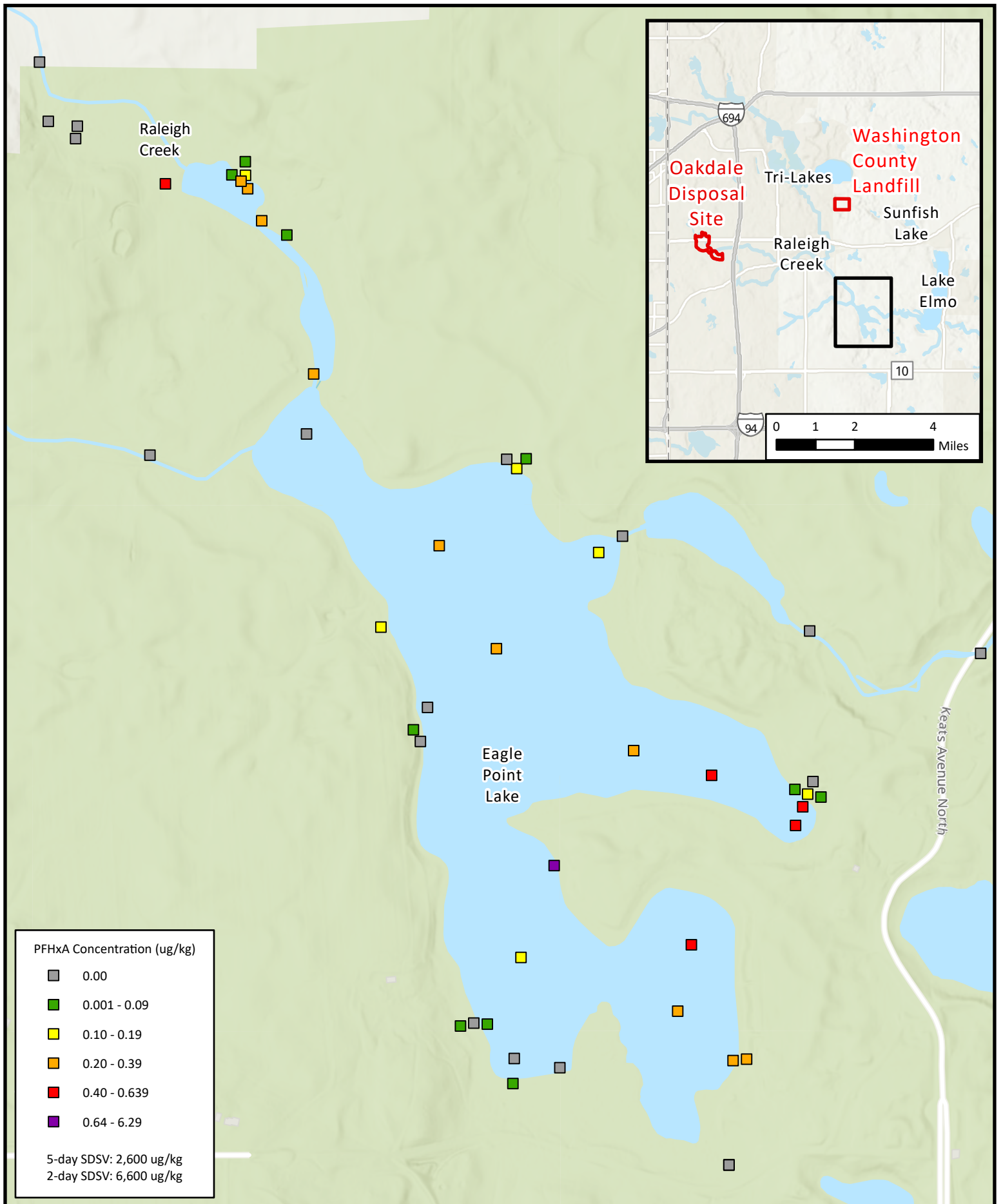
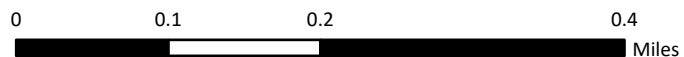


Figure 77: PFHxA Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



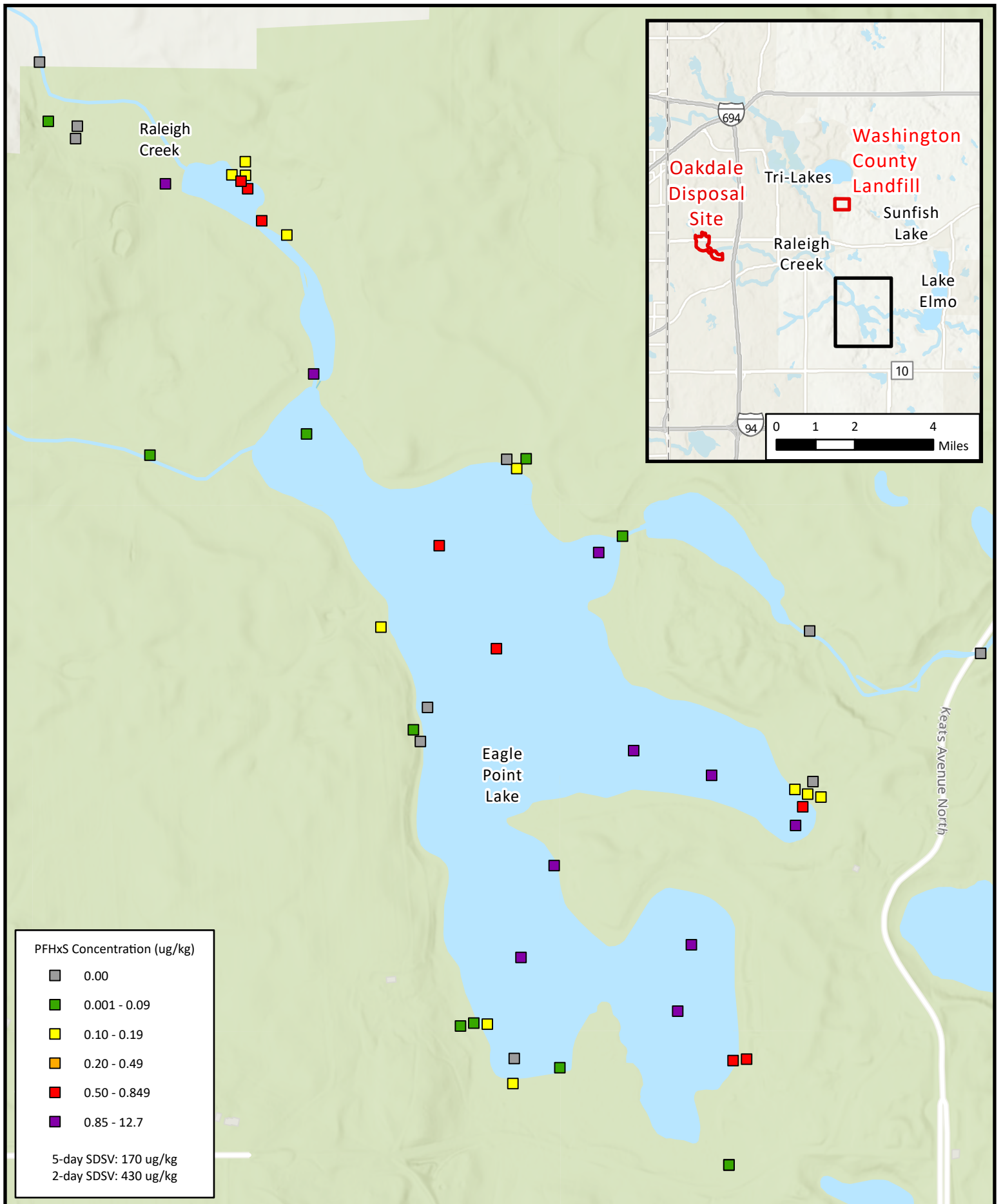
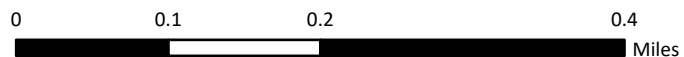


Figure 78: PFHxS Concentration in Eagle Point Lake Sediment
Project 1007 Feasibility Study



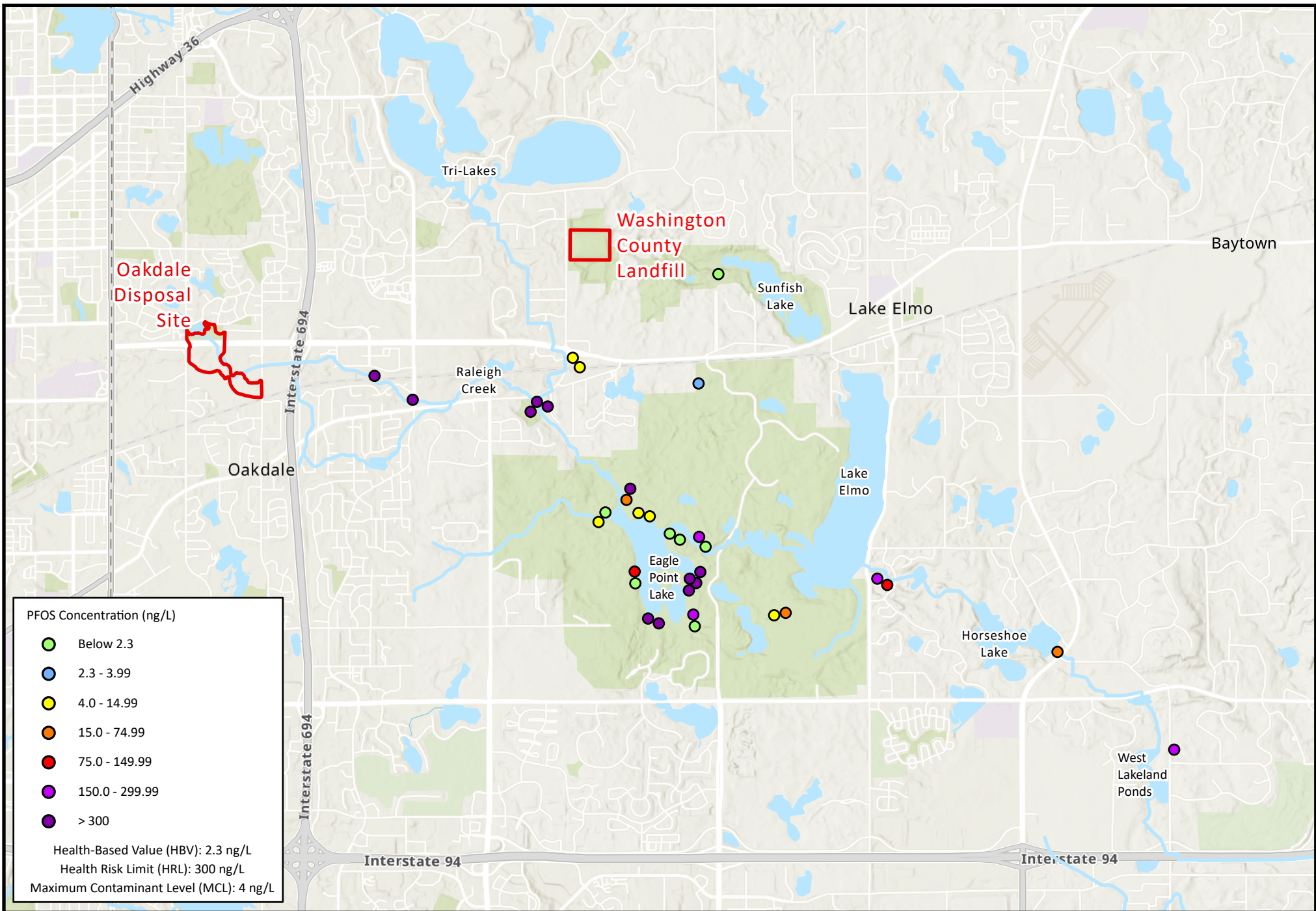
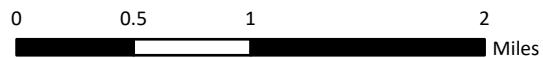
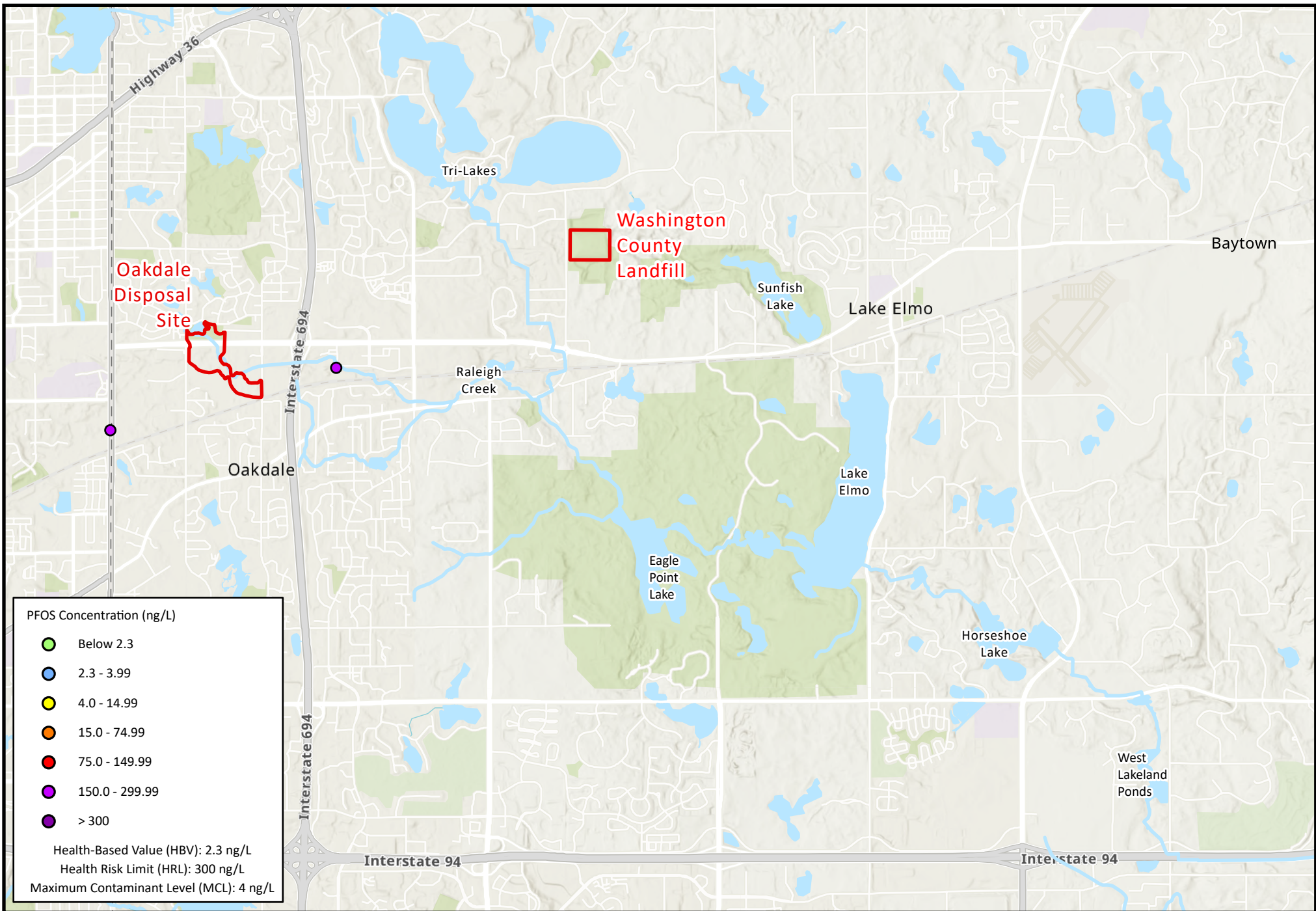
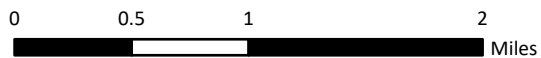


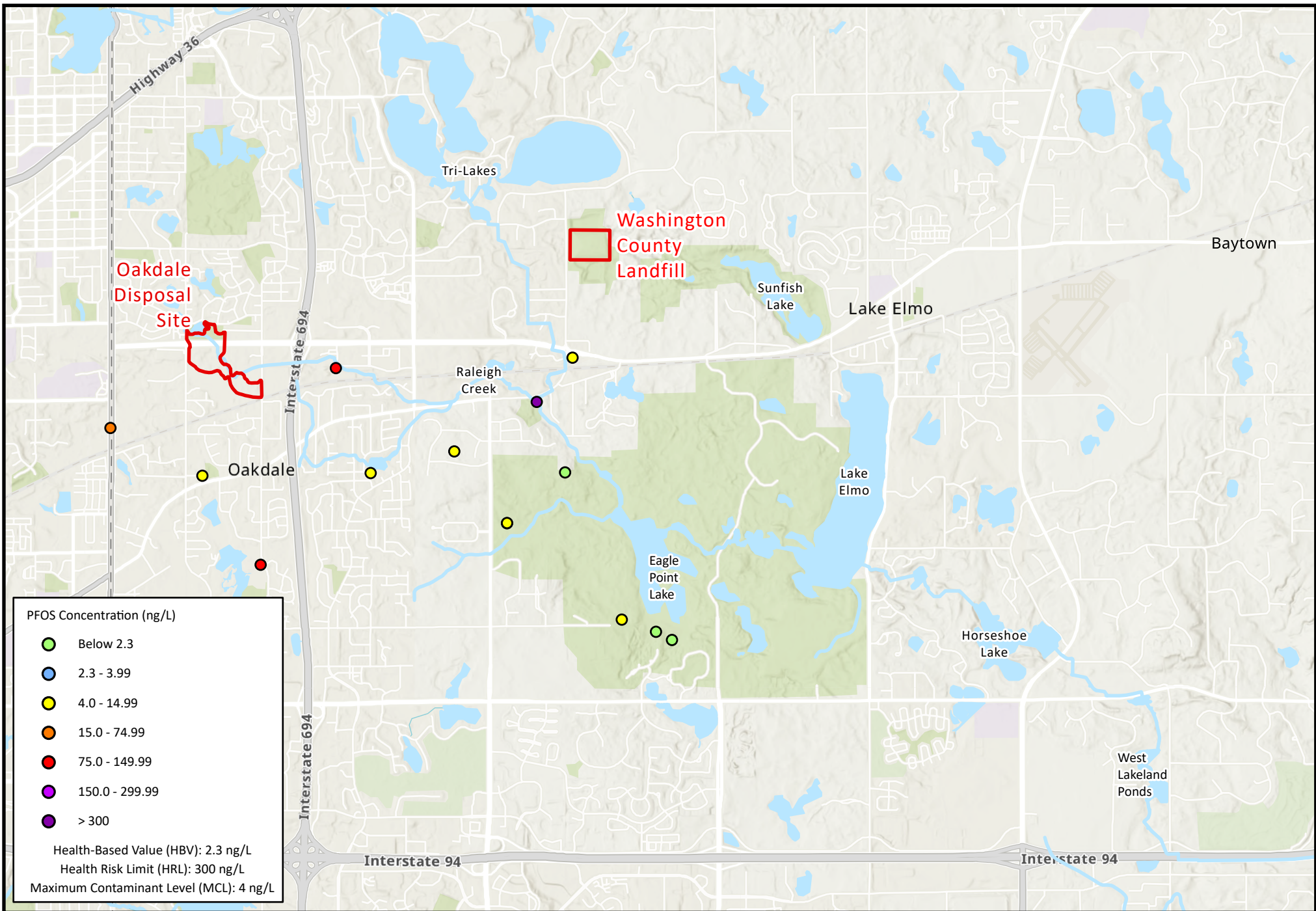
Figure 79: PFOS Concentration in Quaternary Aquifer
Project 1007 Feasibility Study



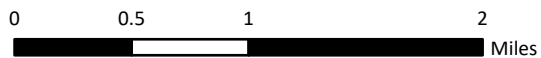


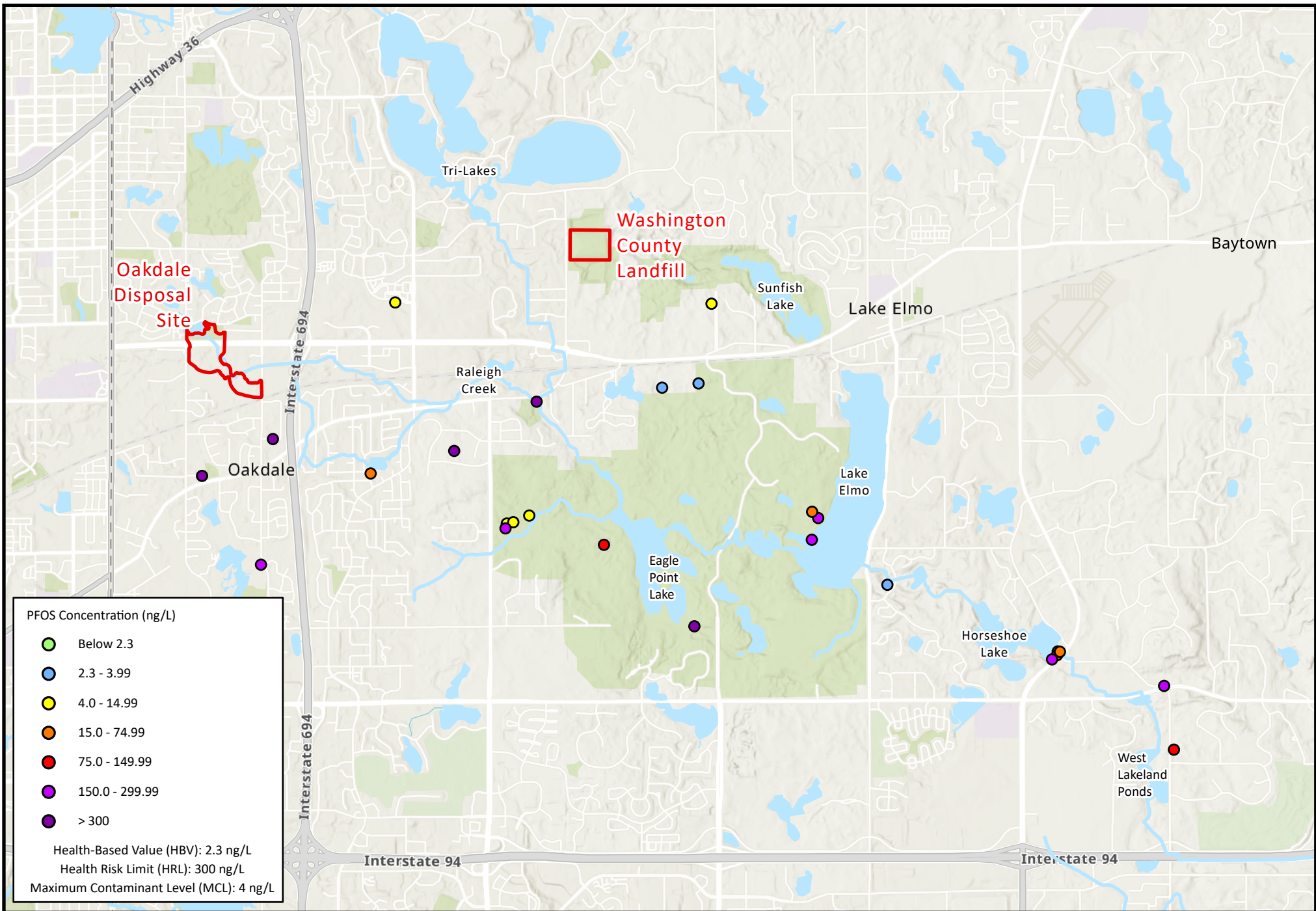
**Figure 80: PFOS Concentration
 in Platteville Aquifer
 Project 1007 Feasibility Study**



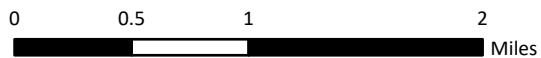


**Figure 81: PFOS Concentration
 in St. Peter Aquifer
 Project 1007 Feasibility Study**





**Figure 82: PFOS Concentration
 in Prairie du Chien Aquifer
 Project 1007 Feasibility Study**



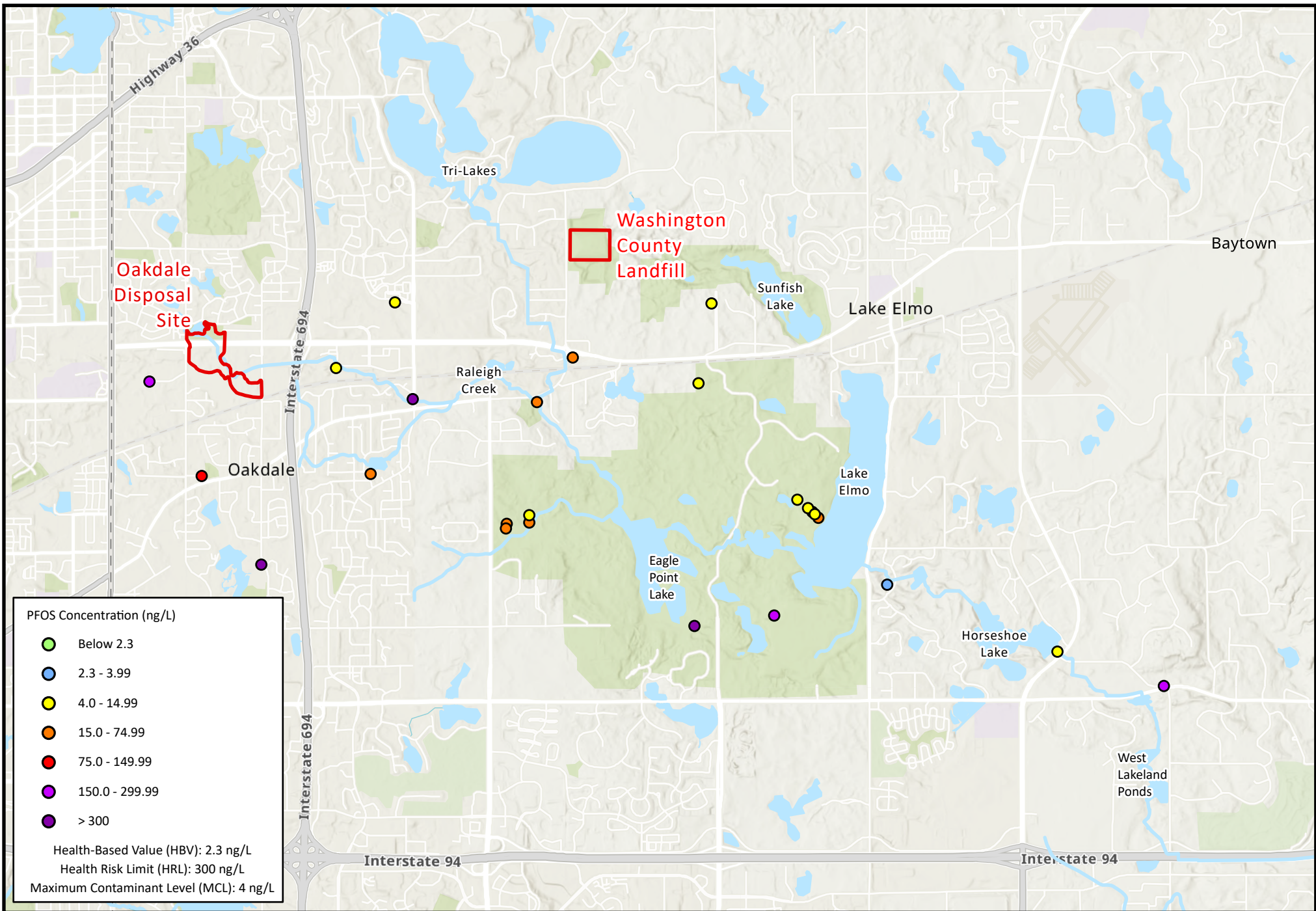
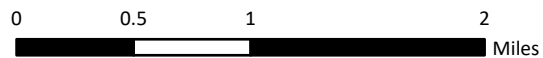


Figure 83: PFOS Concentration in Jordan Aquifer
 Project 1007 Feasibility Study



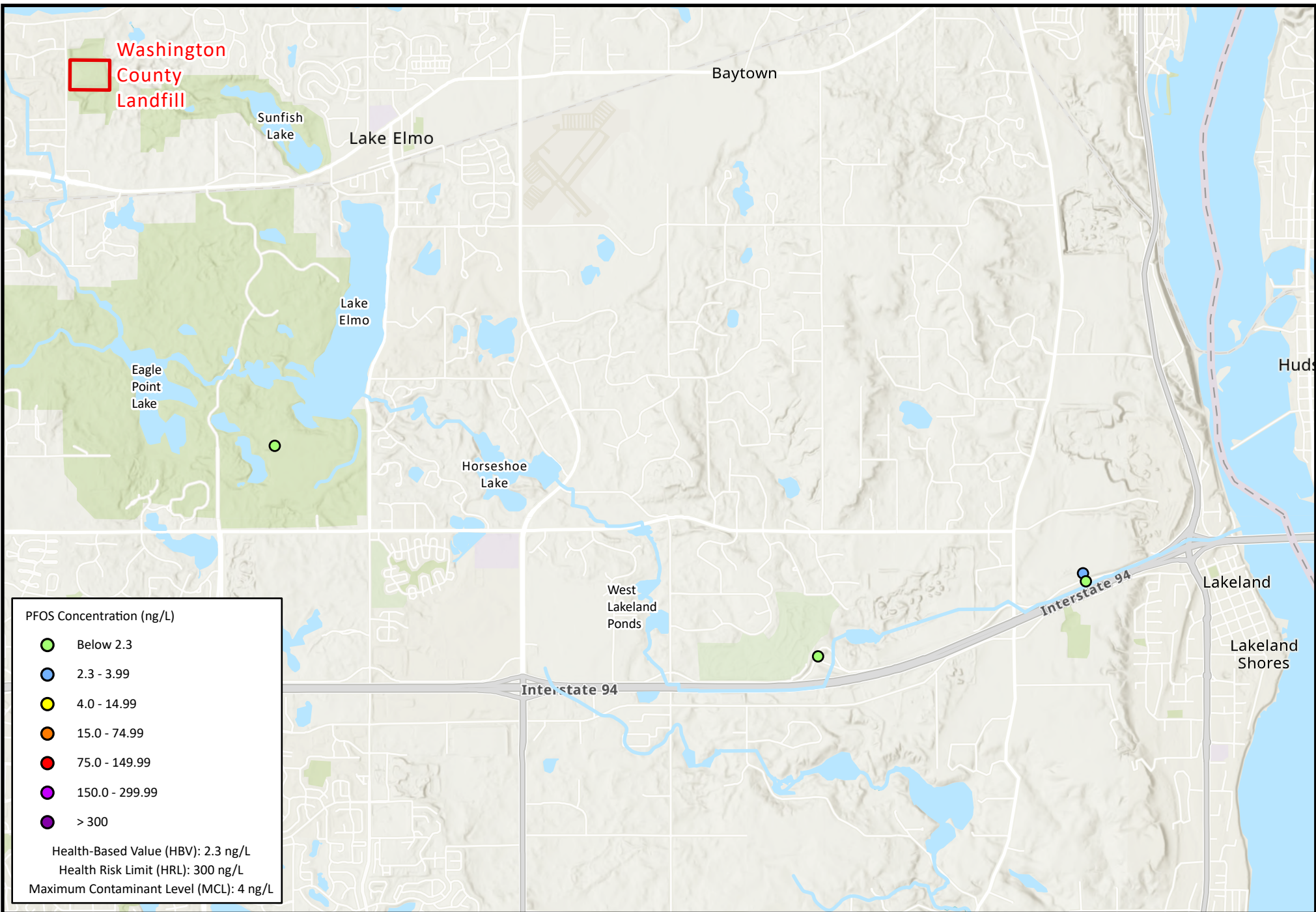
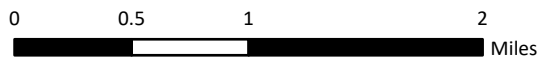
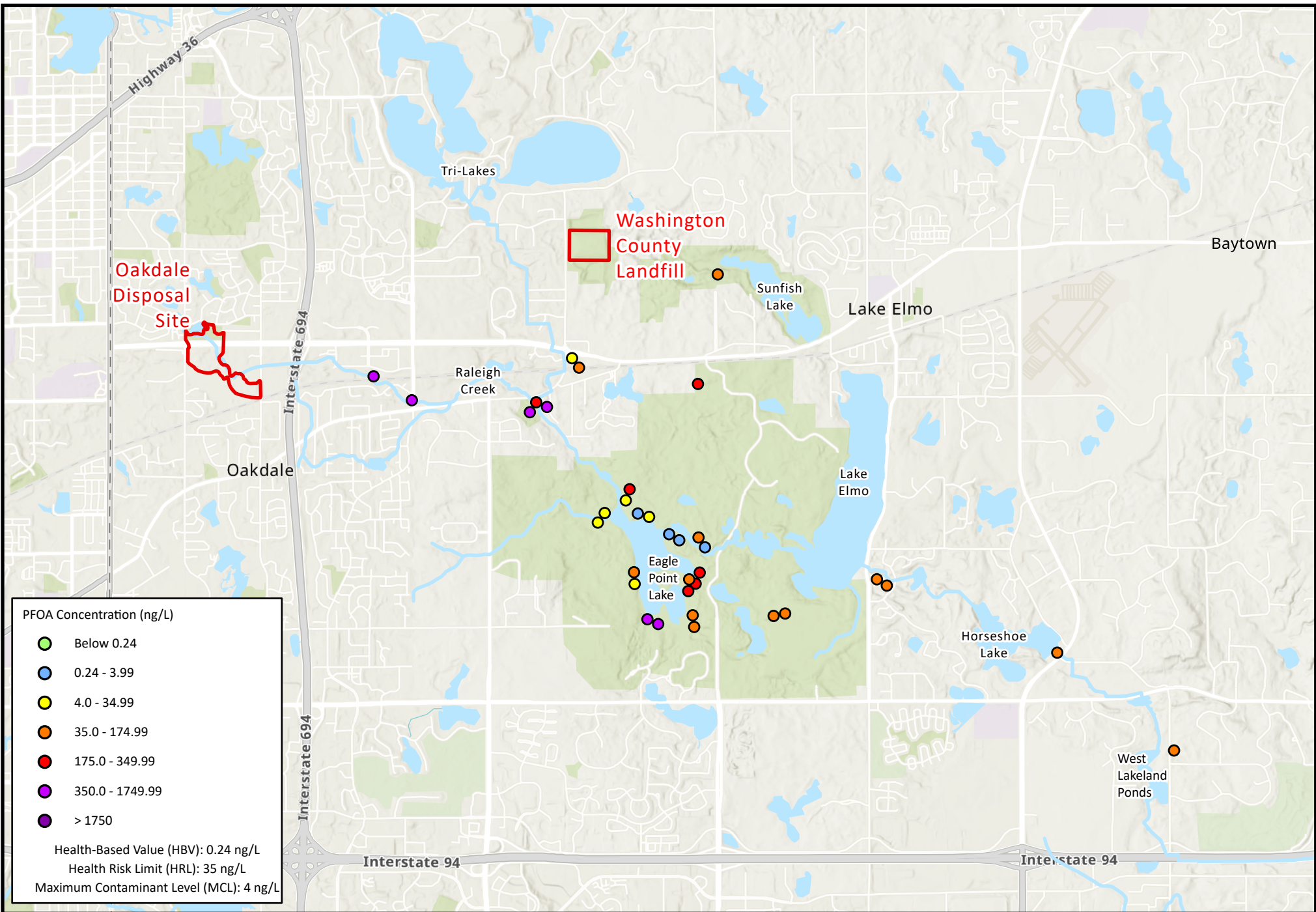
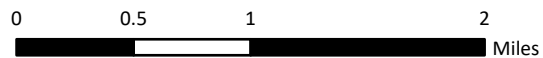


Figure 84: PFOS Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study





**Figure 85: PFOA Concentration
 in Quaternary Aquifer
 Project 1007 Feasibility Study**



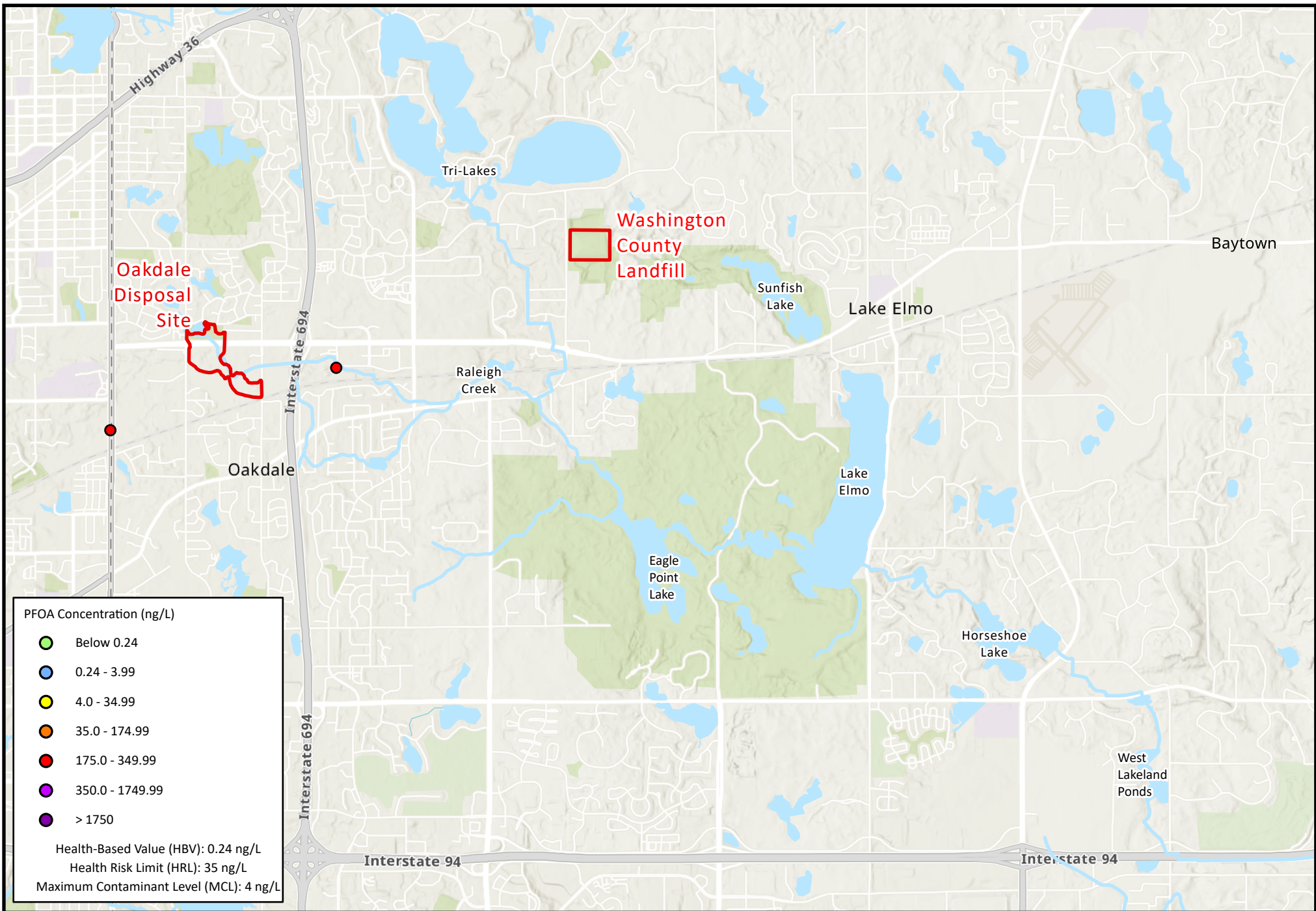
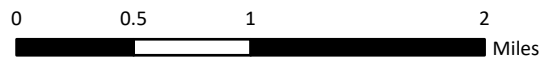
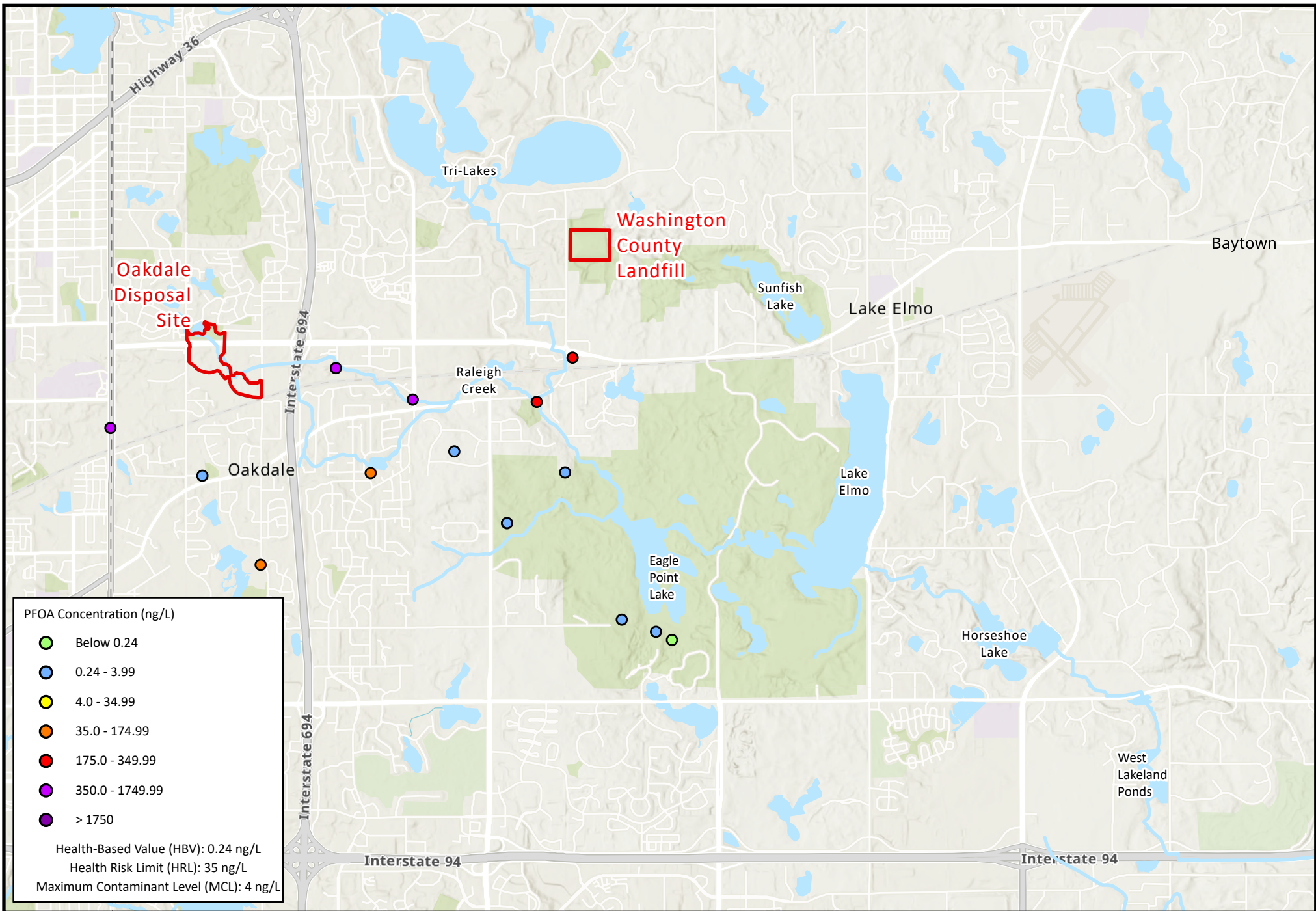
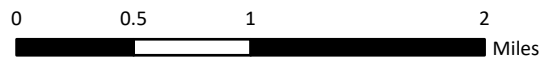


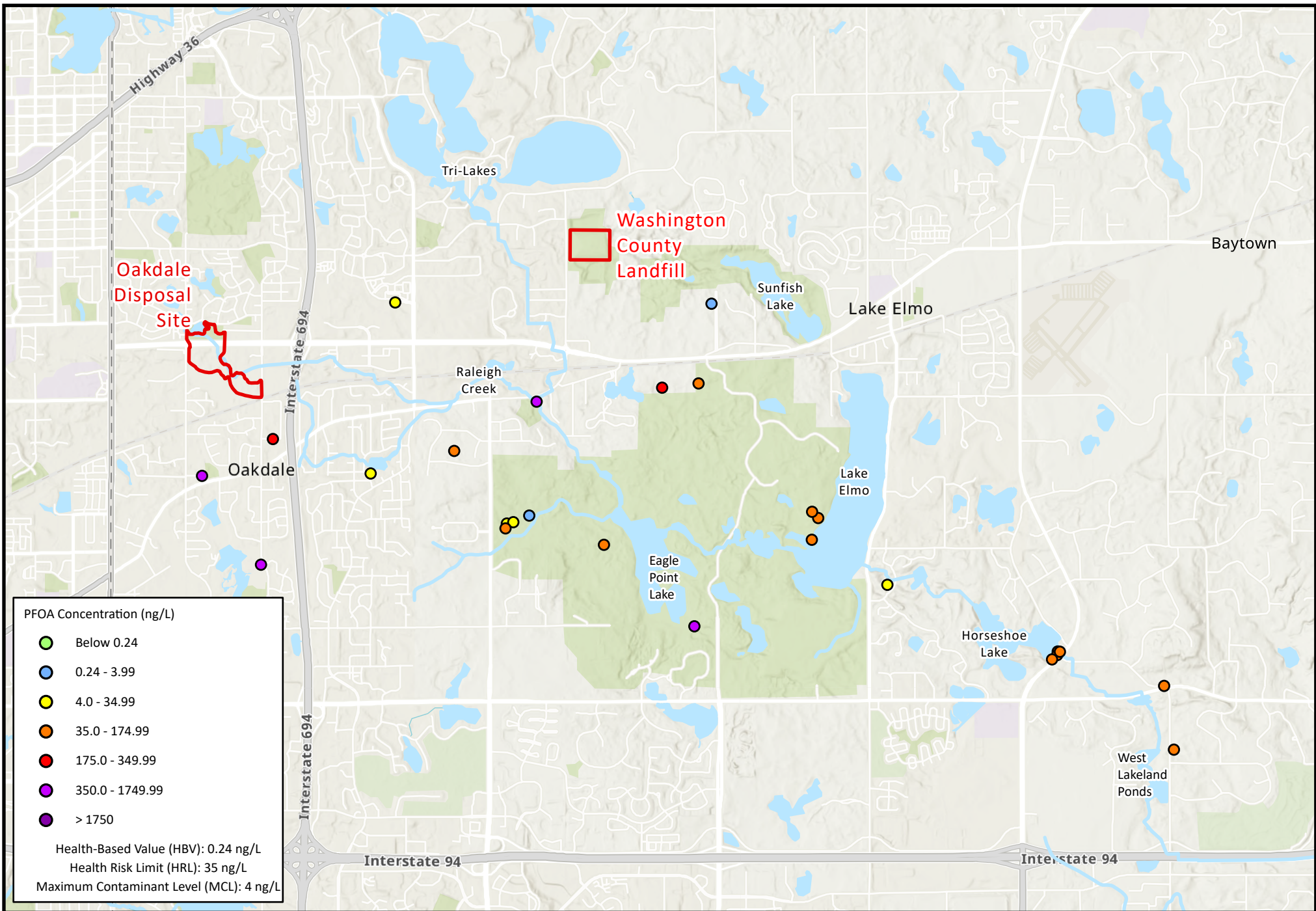
Figure 86: PFOA Concentration in Platteville Aquifer
Project 1007 Feasibility Study



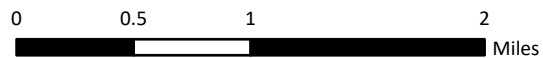


**Figure 87: PFOA Concentration
 in St. Peter Aquifer
 Project 1007 Feasibility Study**





**Figure 88: PFOA Concentration
 in Prairie du Chien Aquifer
 Project 1007 Feasibility Study**



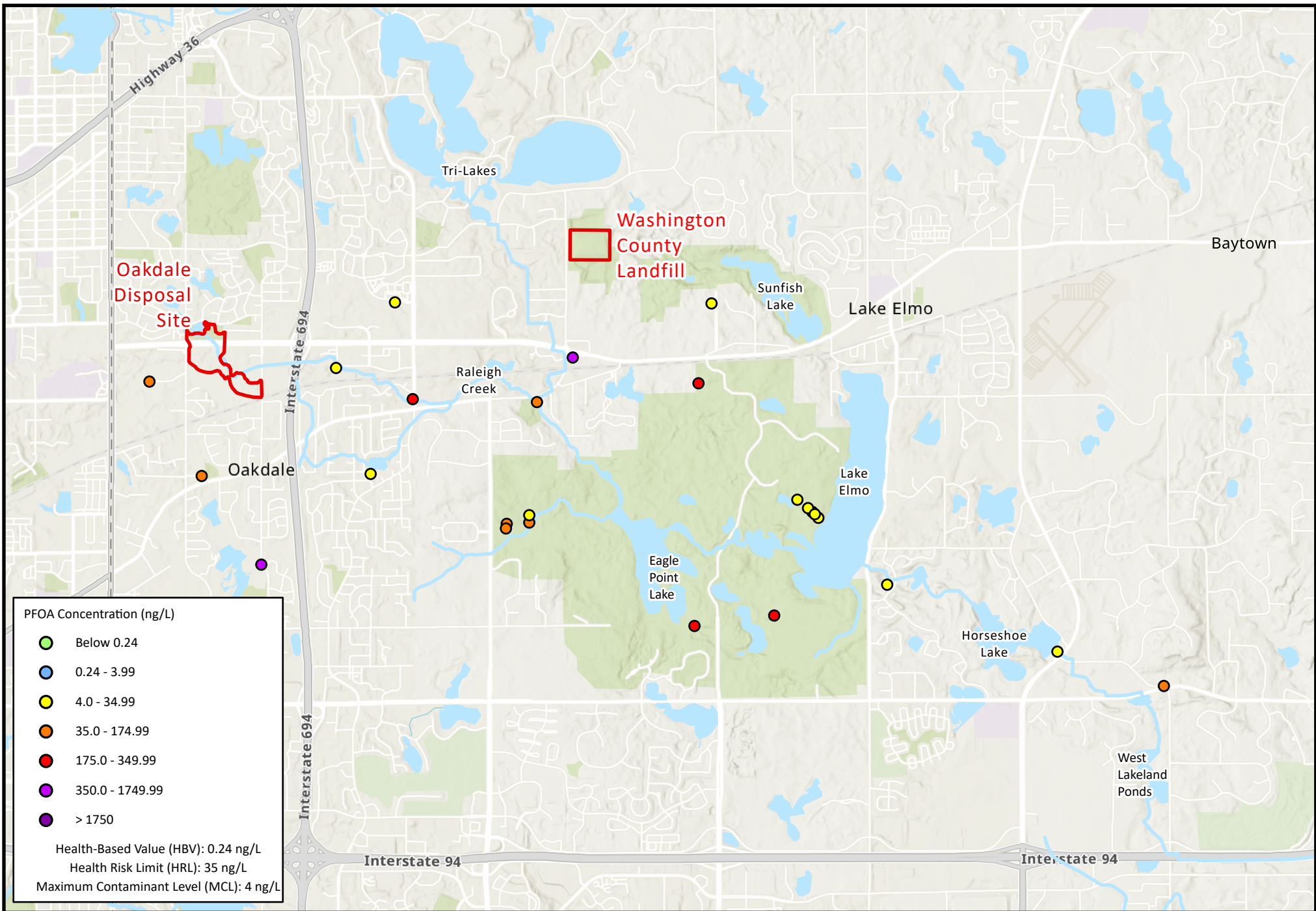
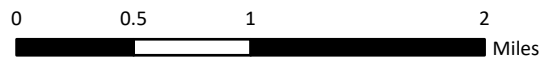


Figure 89: PFOA Concentration in Jordan Aquifer
 Project 1007 Feasibility Study



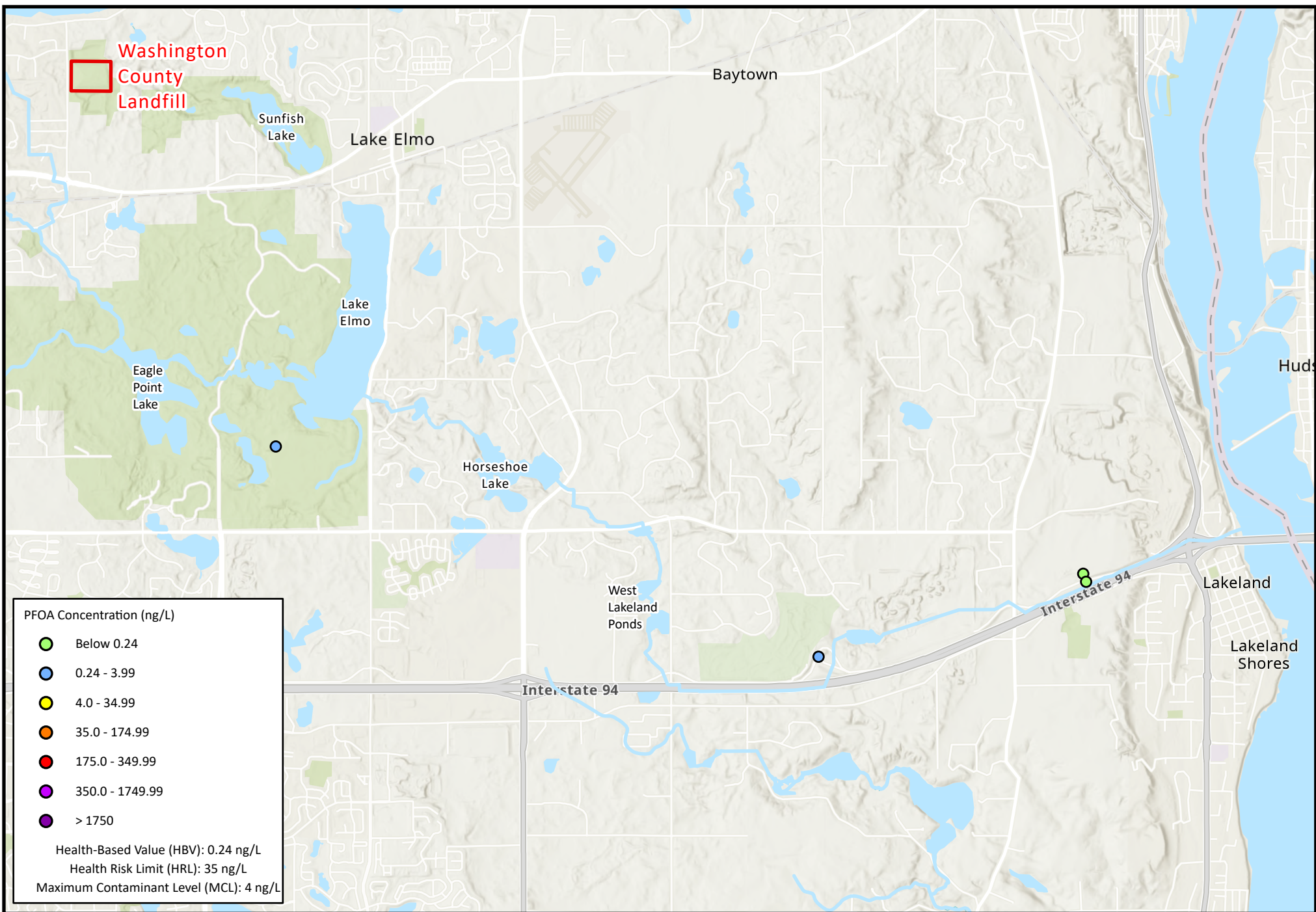
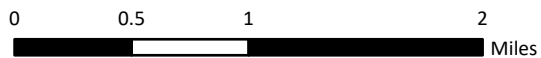
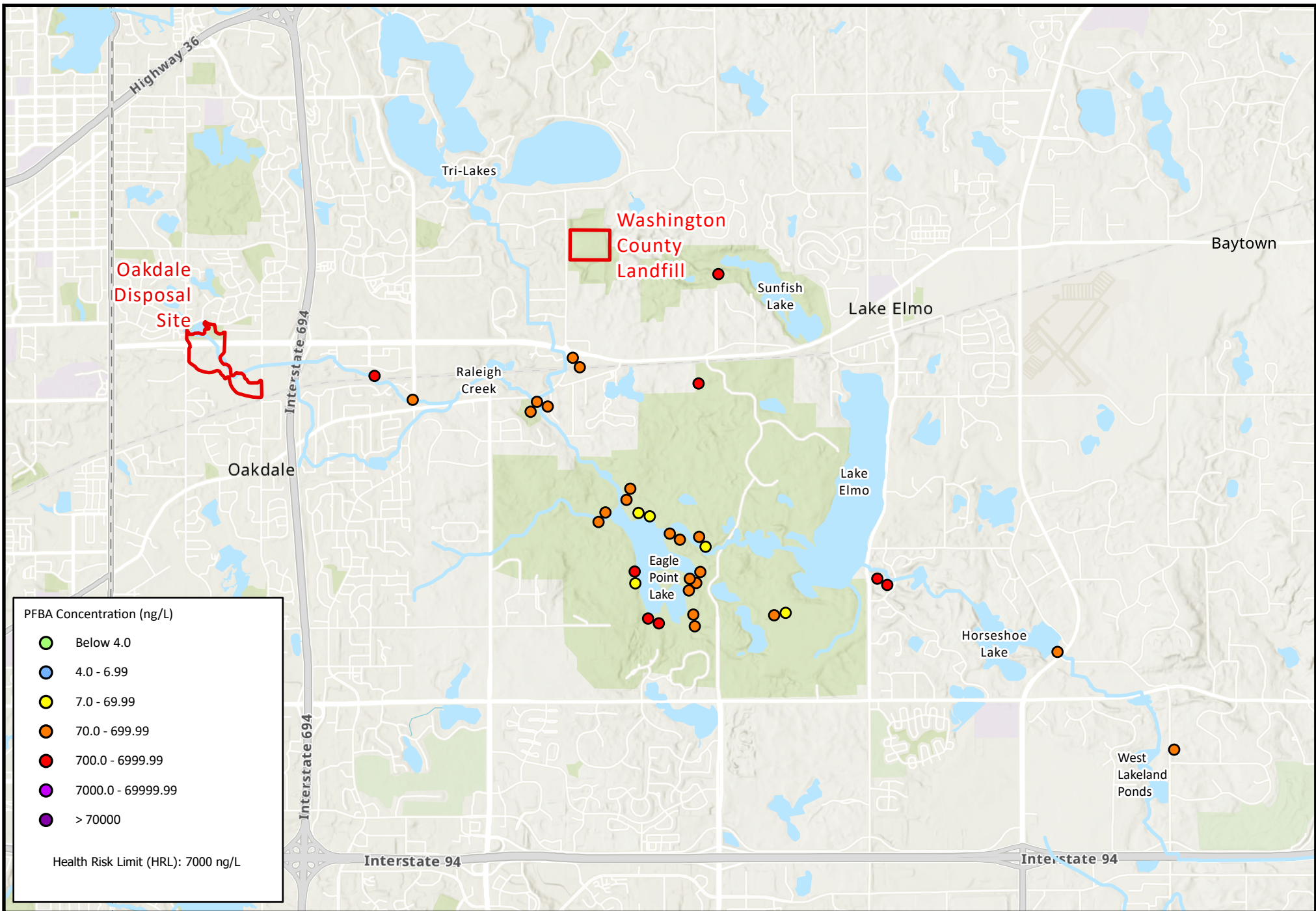
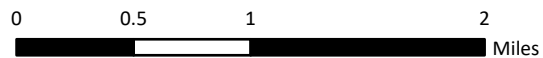


Figure 90: PFOA Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study





**Figure 91: PFBA Concentration
in Quaternary Aquifer
Project 1007 Feasibility Study**



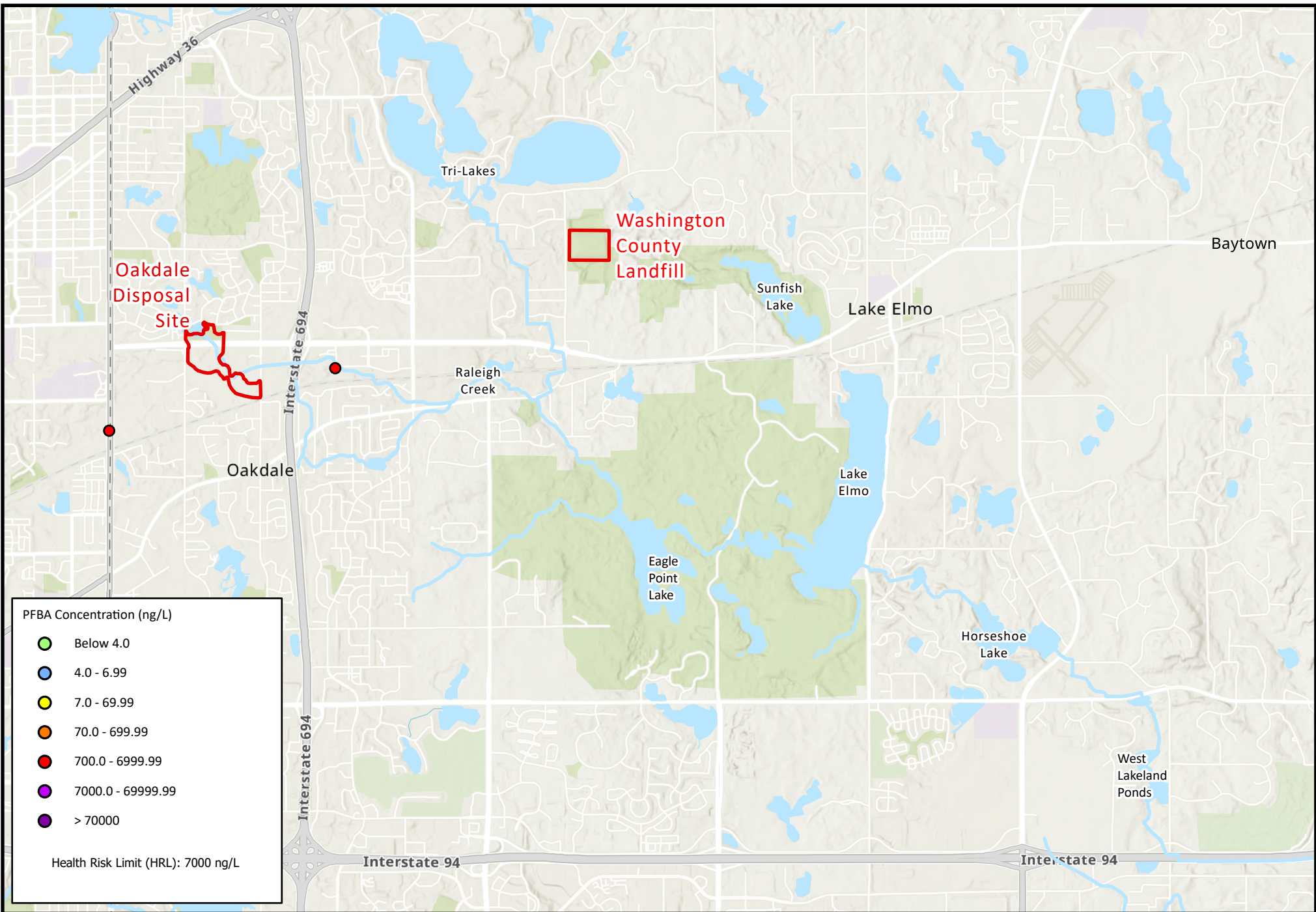
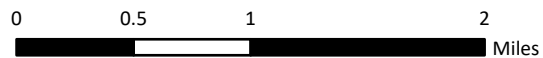
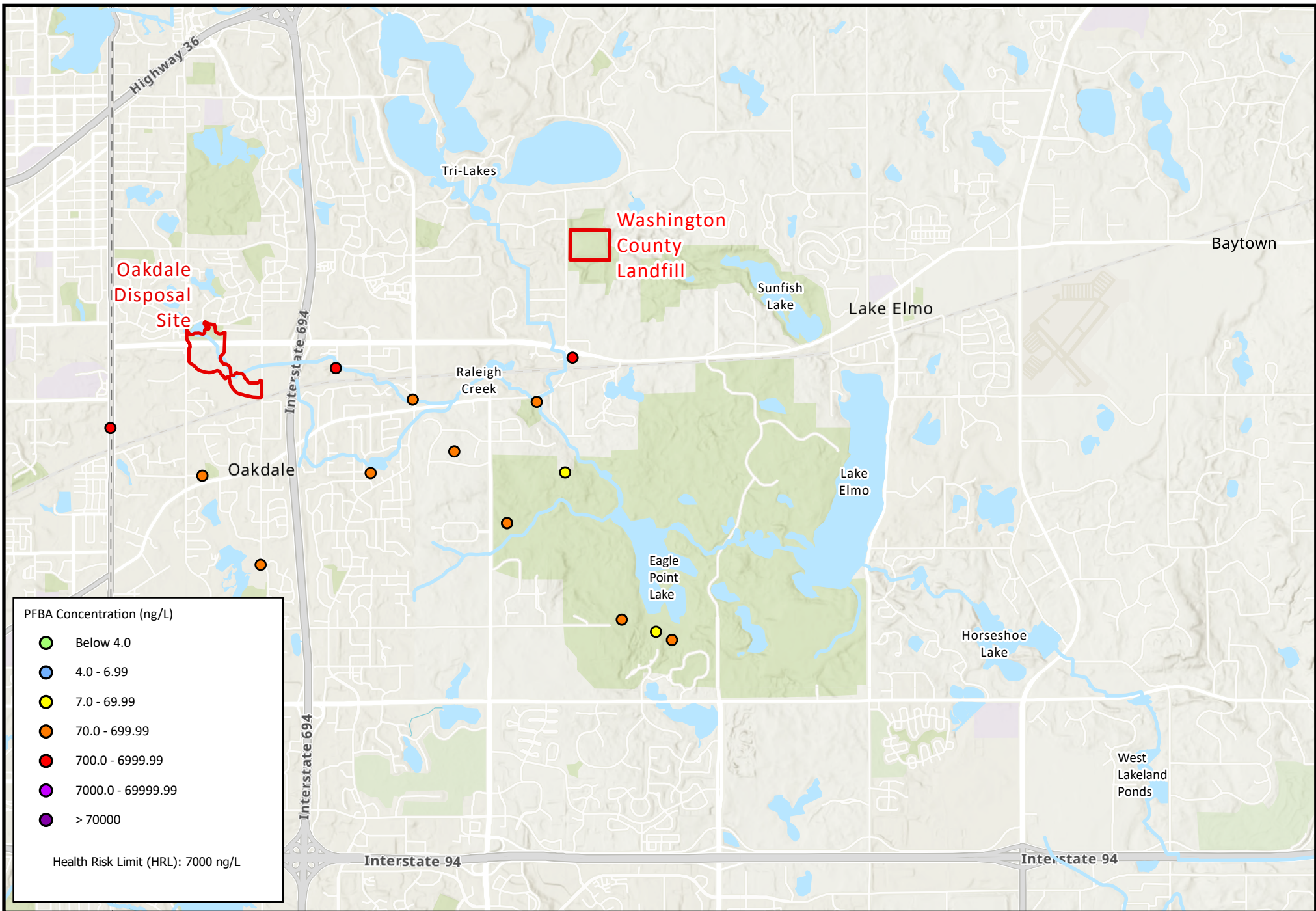
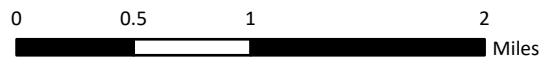


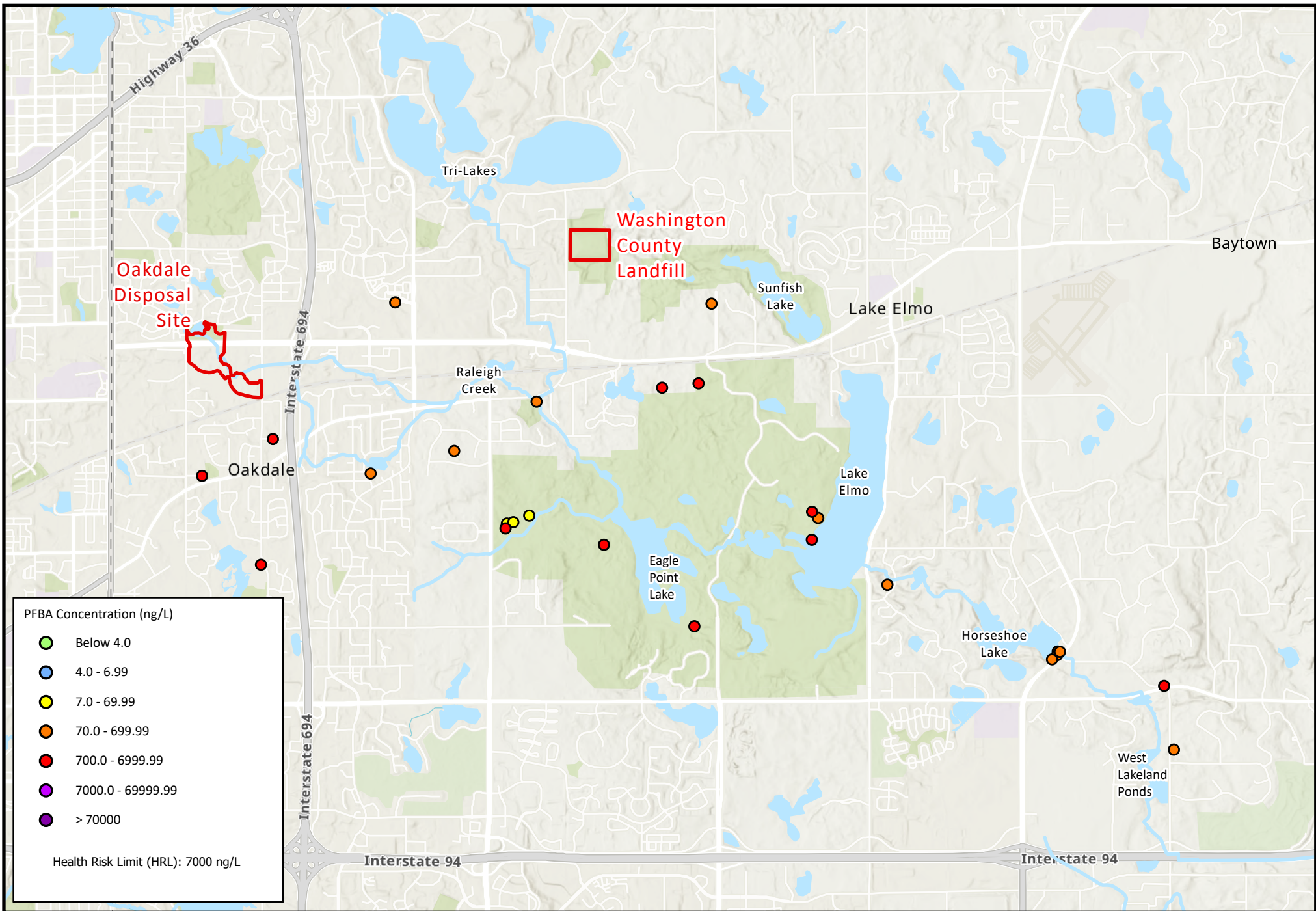
Figure 92: PFBA Concentration in Platteville Aquifer
Project 1007 Feasibility Study



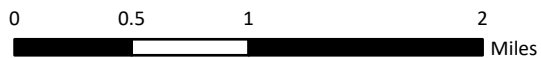


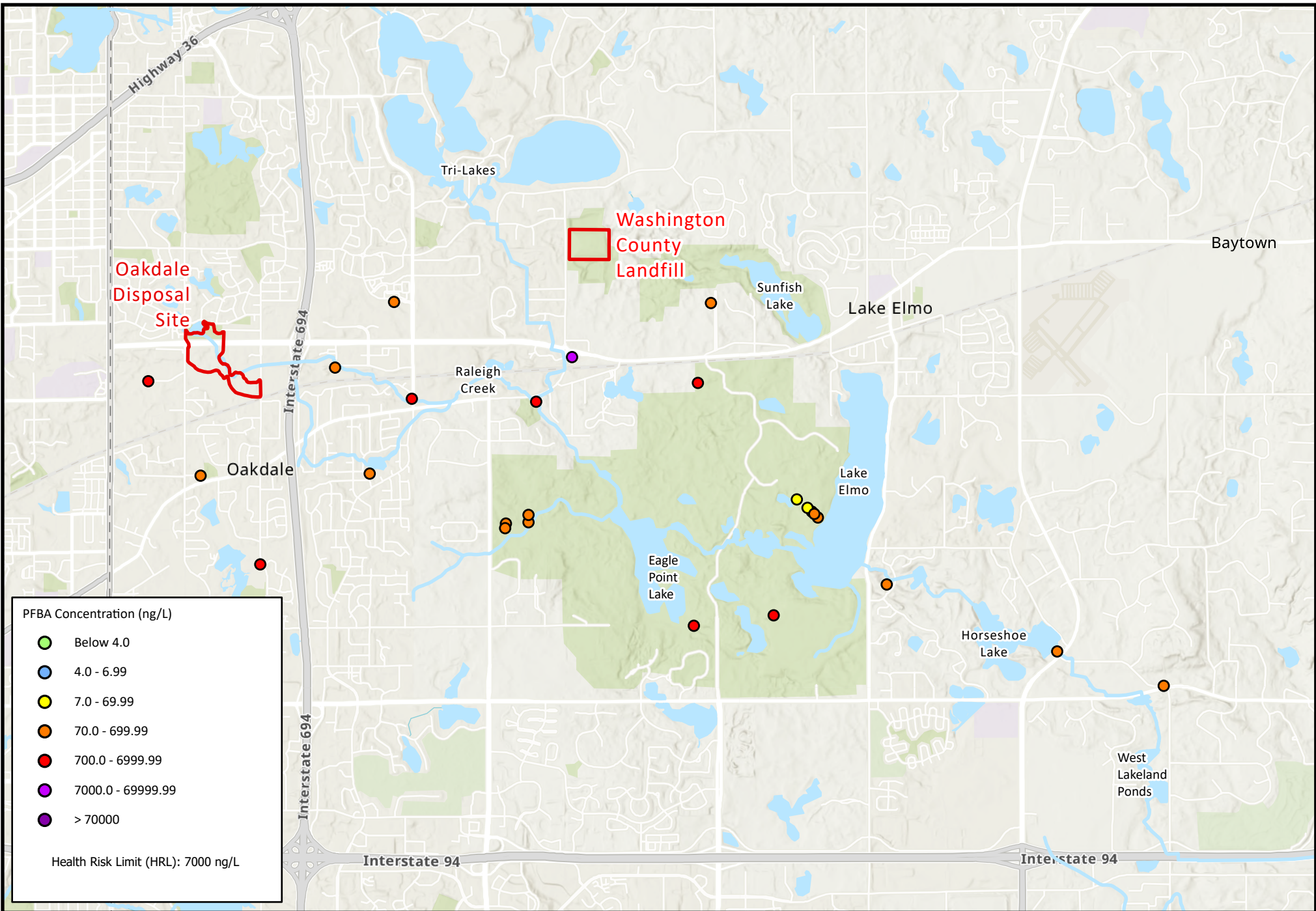
**Figure 93: PFBA Concentration
in St. Peter Aquifer
Project 1007 Feasibility Study**





**Figure 94: PFBA Concentration
in Prairie du Chien Aquifer
Project 1007 Feasibility Study**



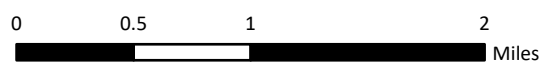


PFBA Concentration (ng/L)

- Below 4.0
- 4.0 - 6.99
- 7.0 - 69.99
- 70.0 - 699.99
- 700.0 - 6999.99
- 7000.0 - 69999.99
- > 70000

Health Risk Limit (HRL): 7000 ng/L

Figure 95: PFBA Concentration in Jordan Aquifer
Project 1007 Feasibility Study



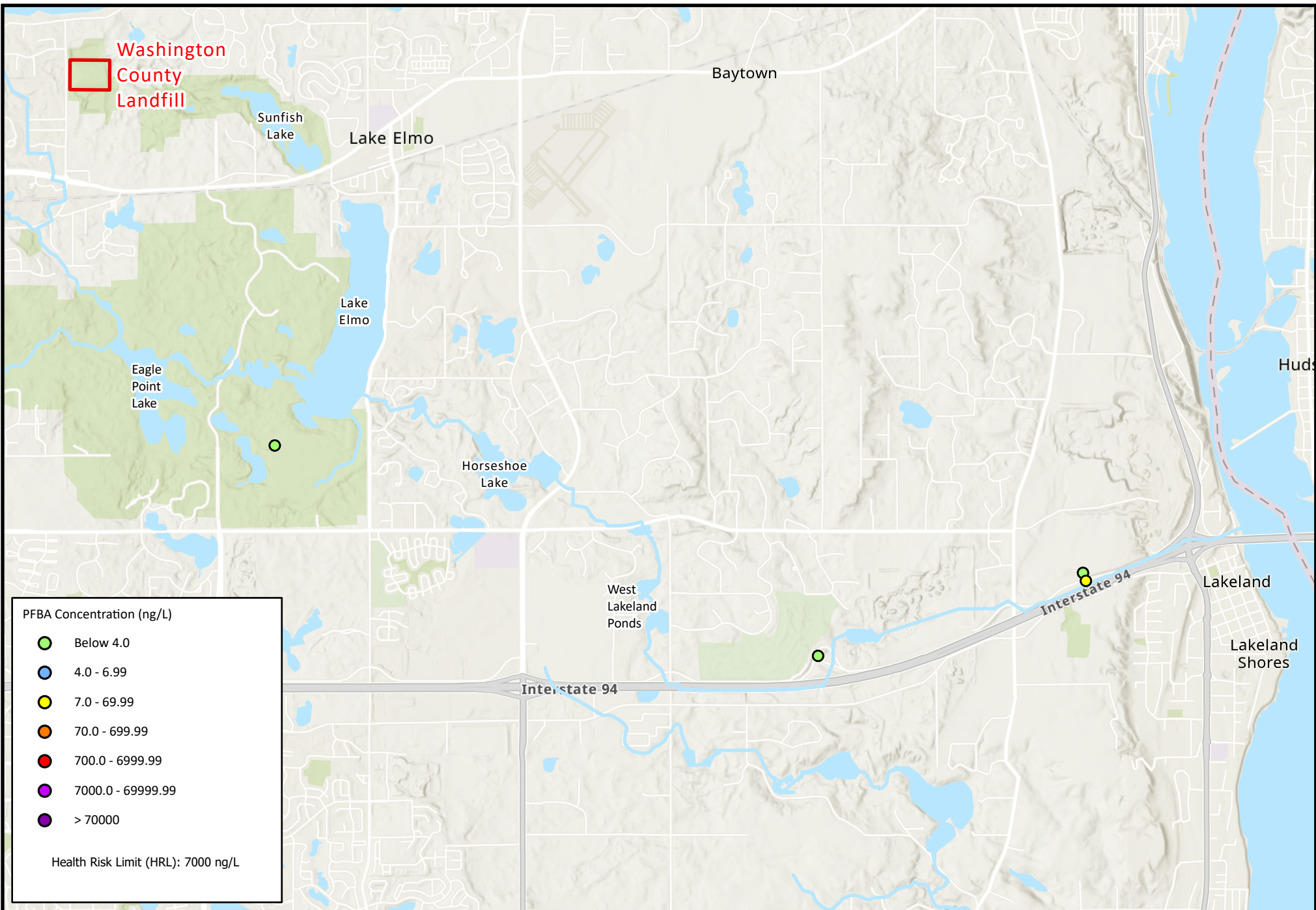
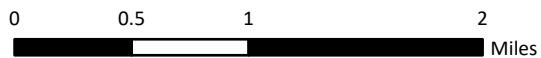


Figure 96: PFBA Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study



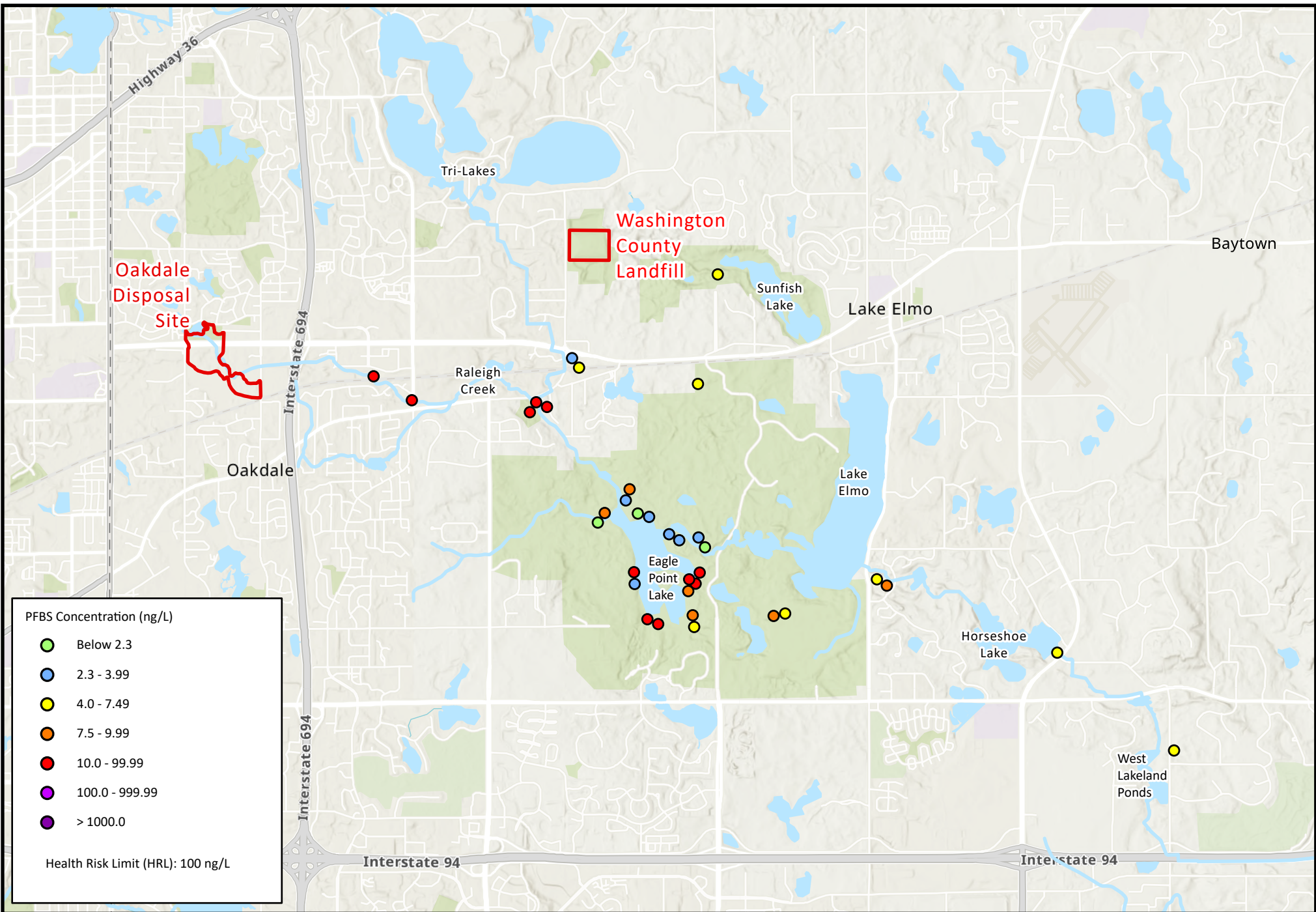
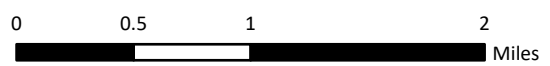


Figure 97: PFBS Concentration in Quaternary Aquifer
Project 1007 Feasibility Study



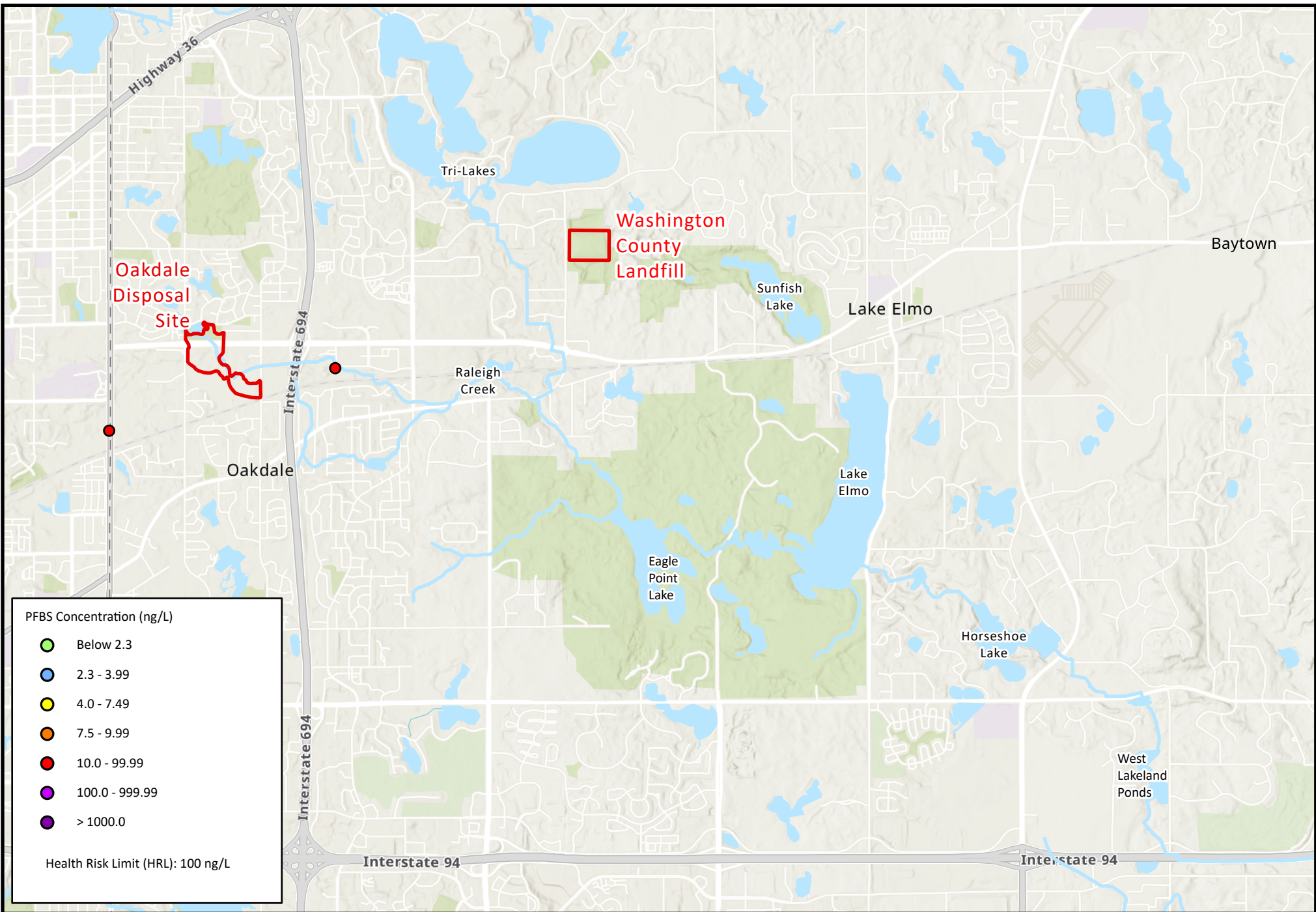
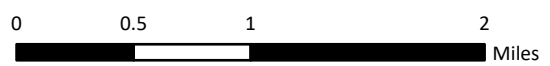


Figure 98: PFBS Concentration in Platteville Aquifer
Project 1007 Feasibility Study



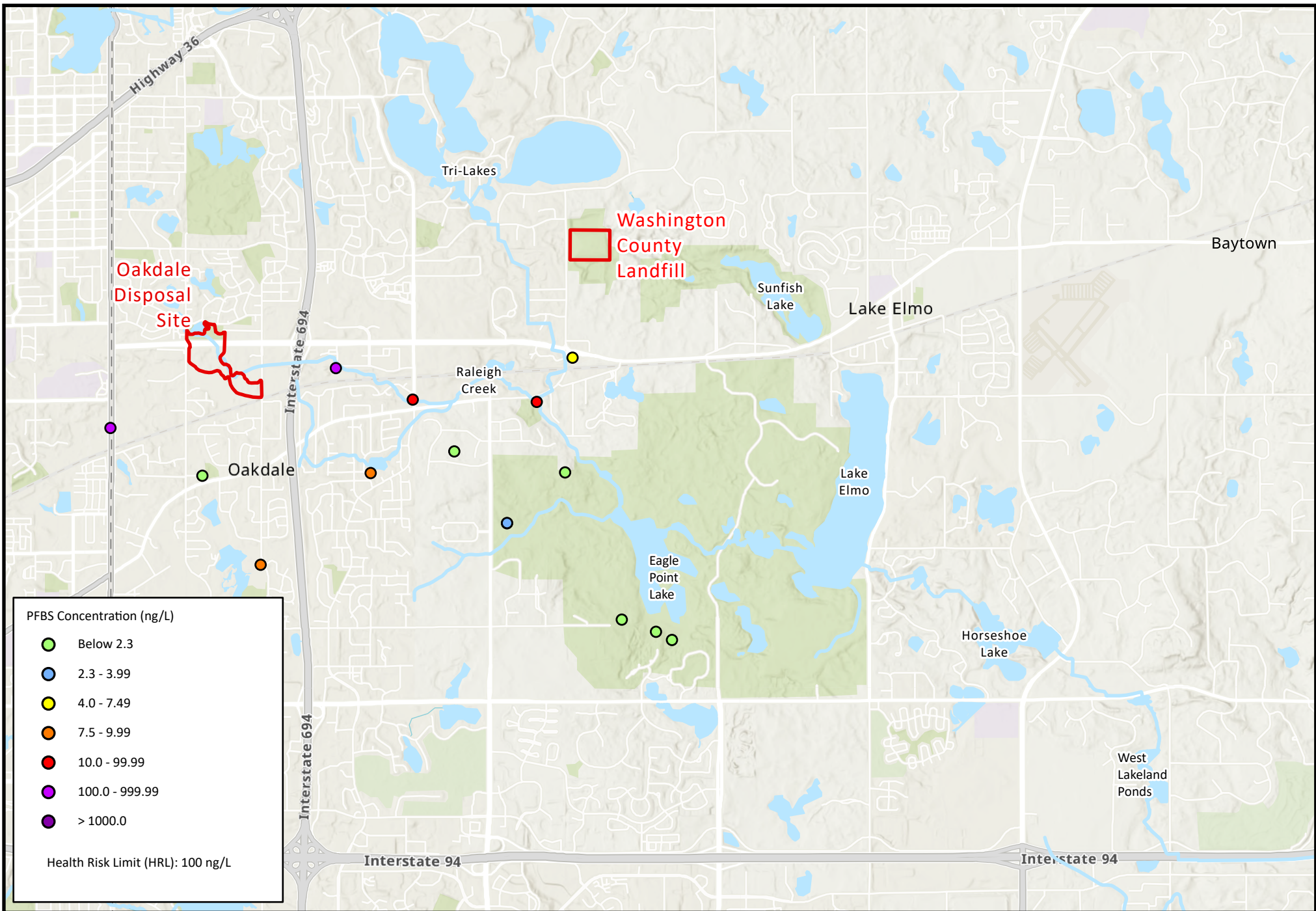
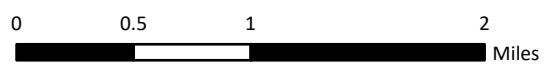


Figure 99: PFBS Concentration in St. Peter Aquifer
Project 1007 Feasibility Study



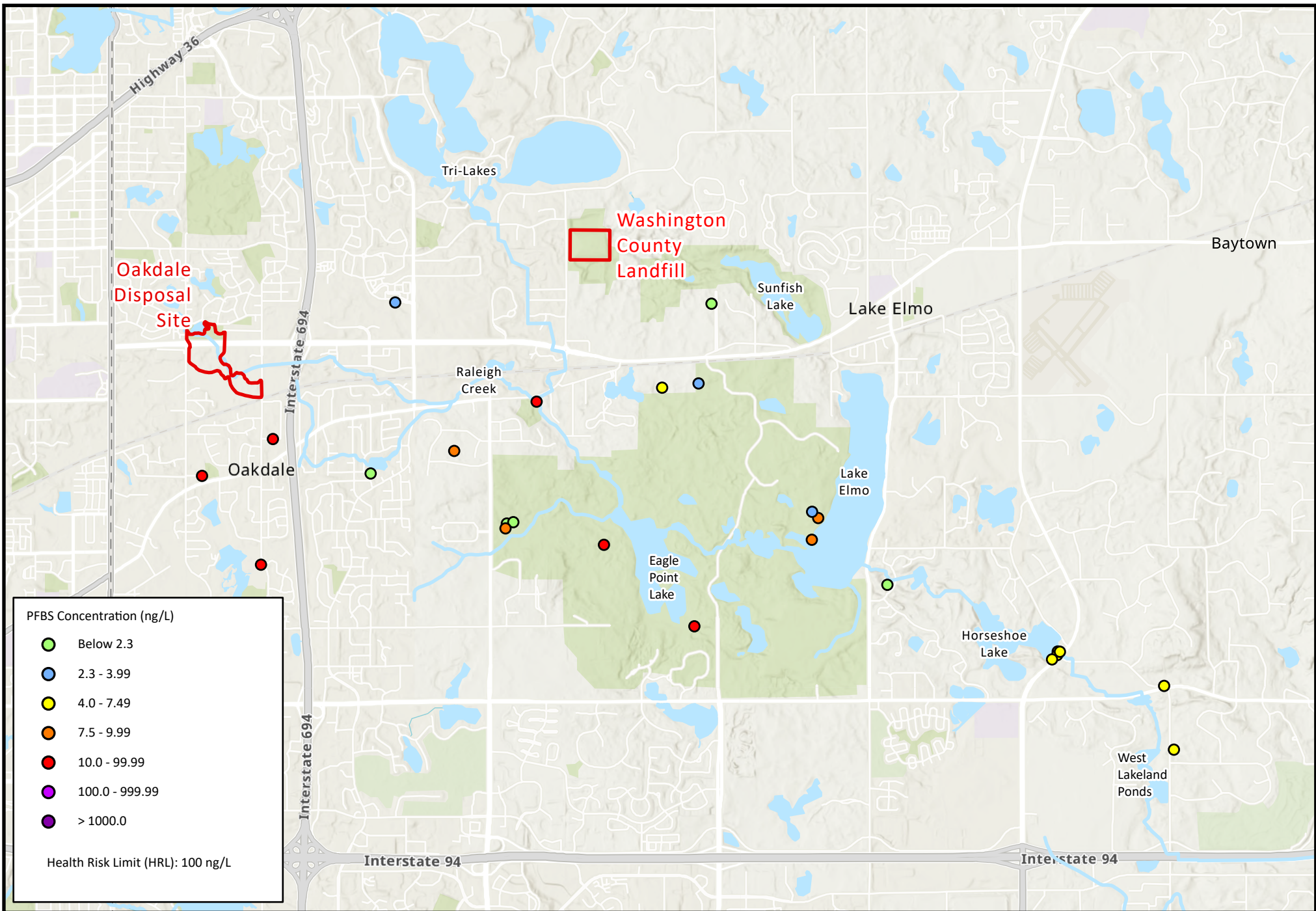
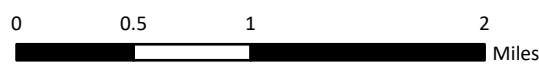


Figure 100: PFBS Concentration in Prairie du Chien Aquifer
Project 1007 Feasibility Study



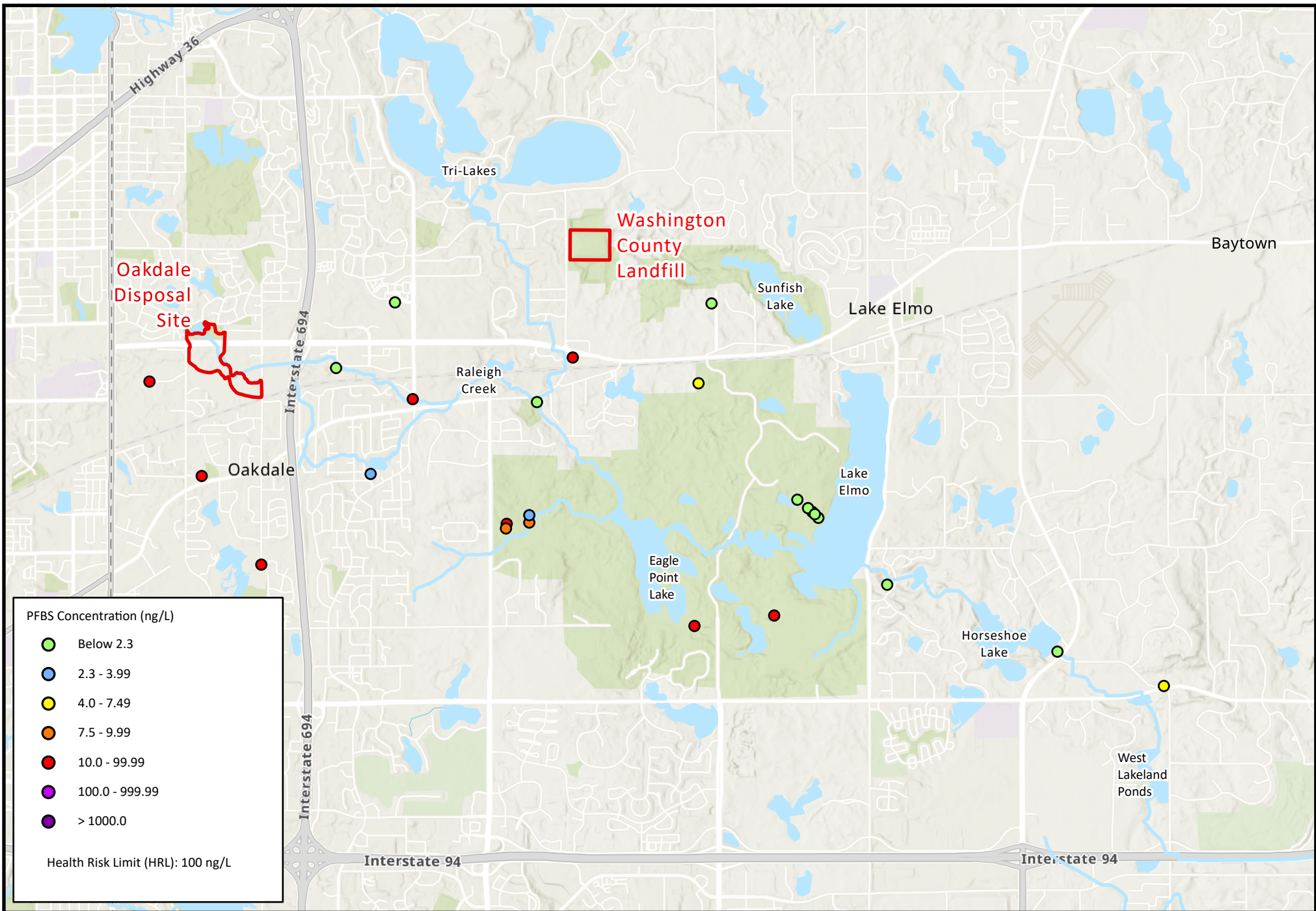
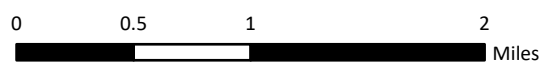


Figure 101: PFBS Concentration in Jordan Aquifer
Project 1007 Feasibility Study



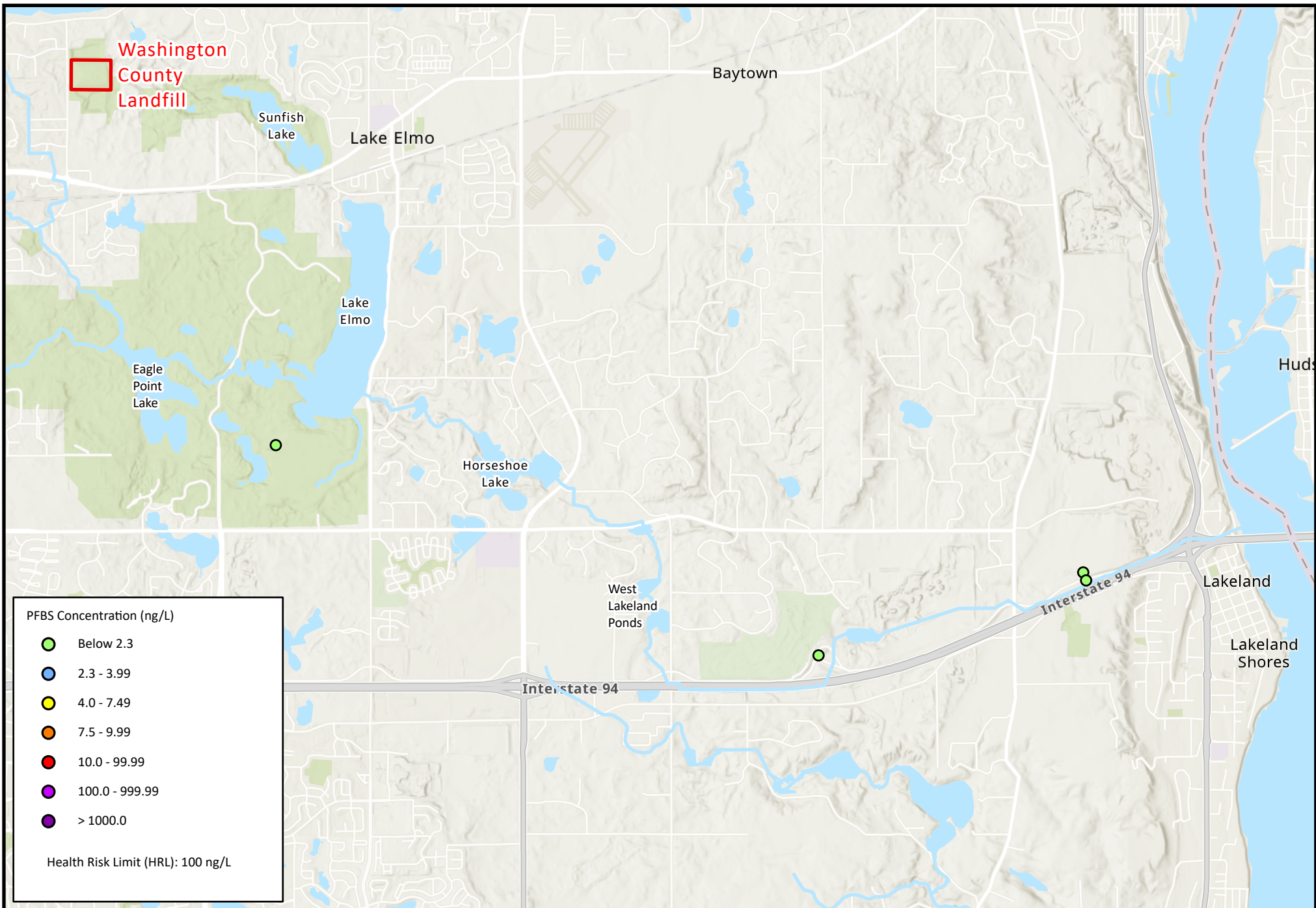


Figure 102: PFBS Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study

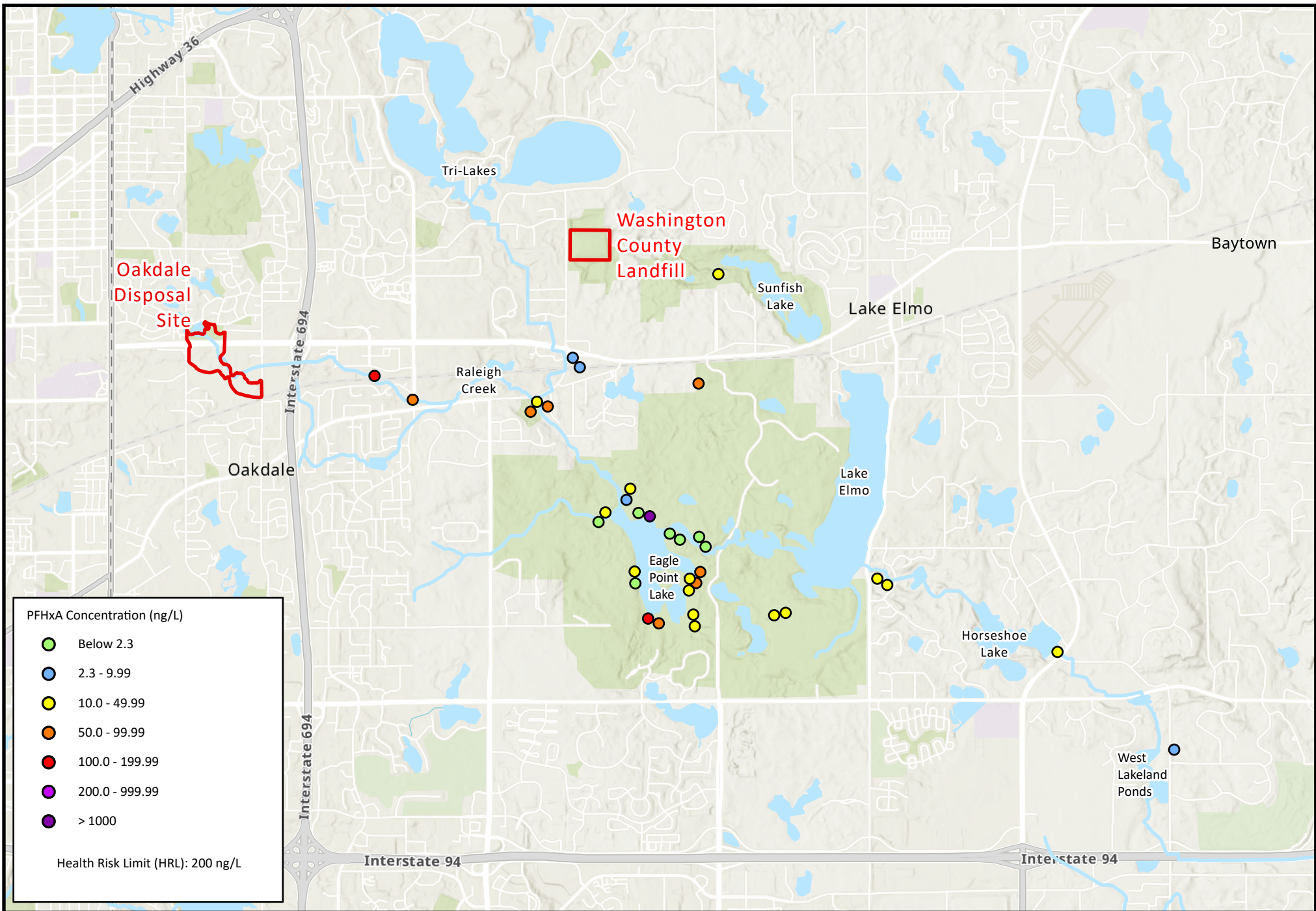
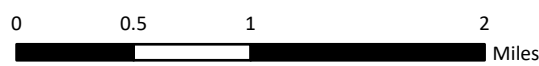


Figure 103: PFHxA Concentration in Quaternary Aquifer
Project 1007 Feasibility Study



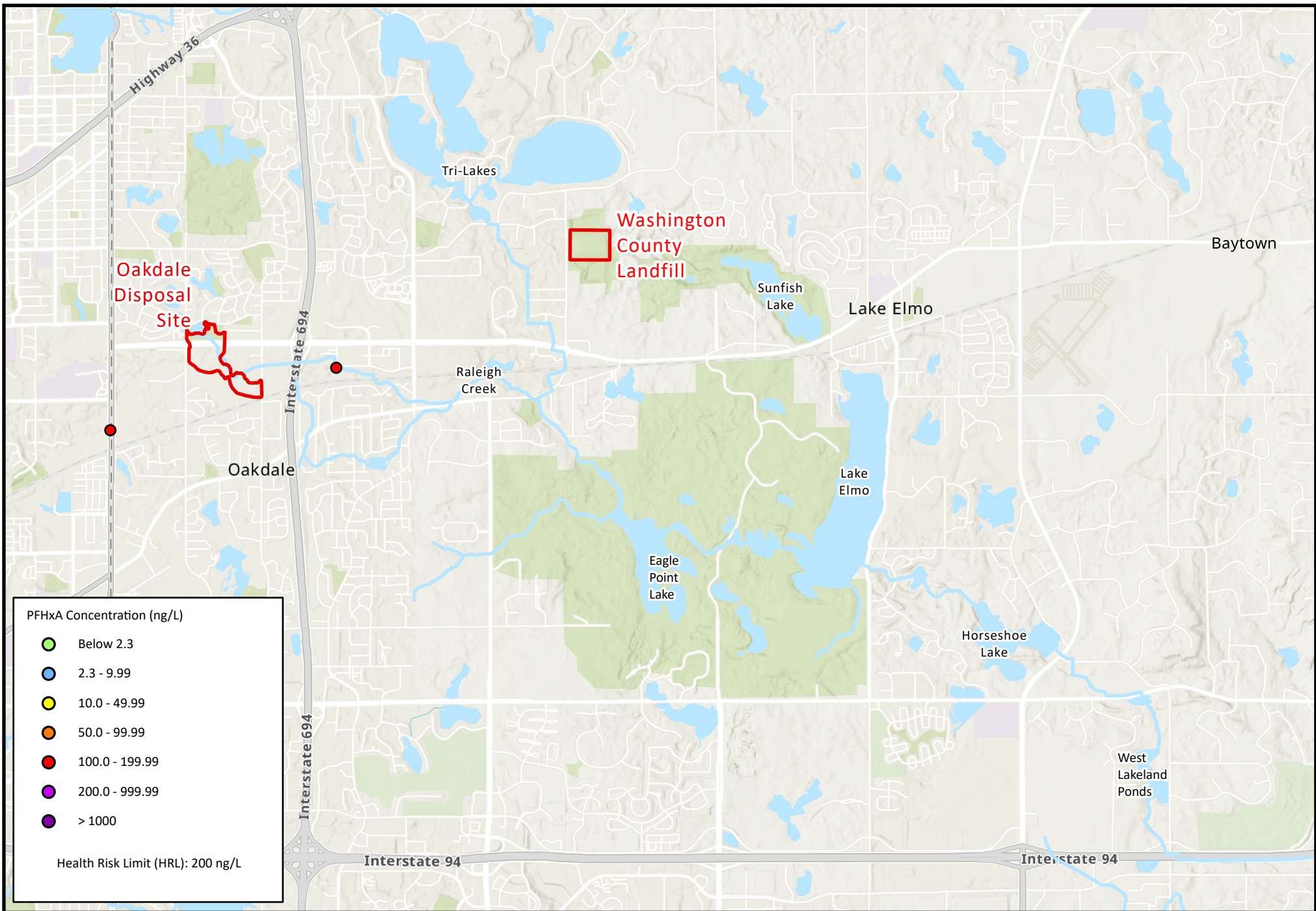


Figure 104: PFHxA Concentration in Platteville Aquifer
Project 1007 Feasibility Study

0 0.5 1 2 Miles

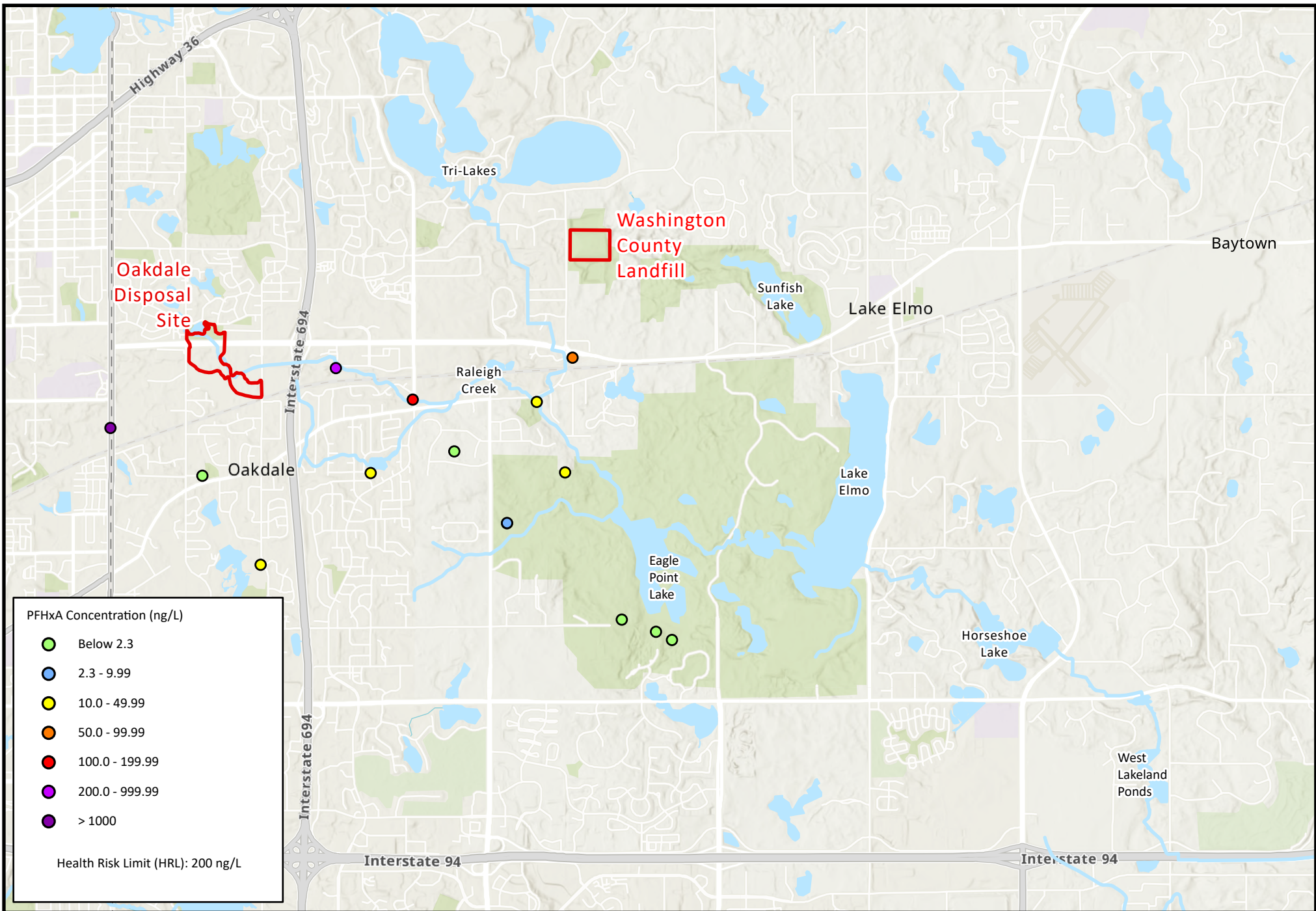
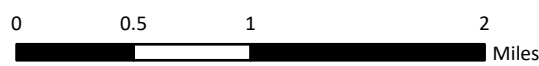


Figure 105: PFHxA Concentration in St. Peter Aquifer
Project 1007 Feasibility Study



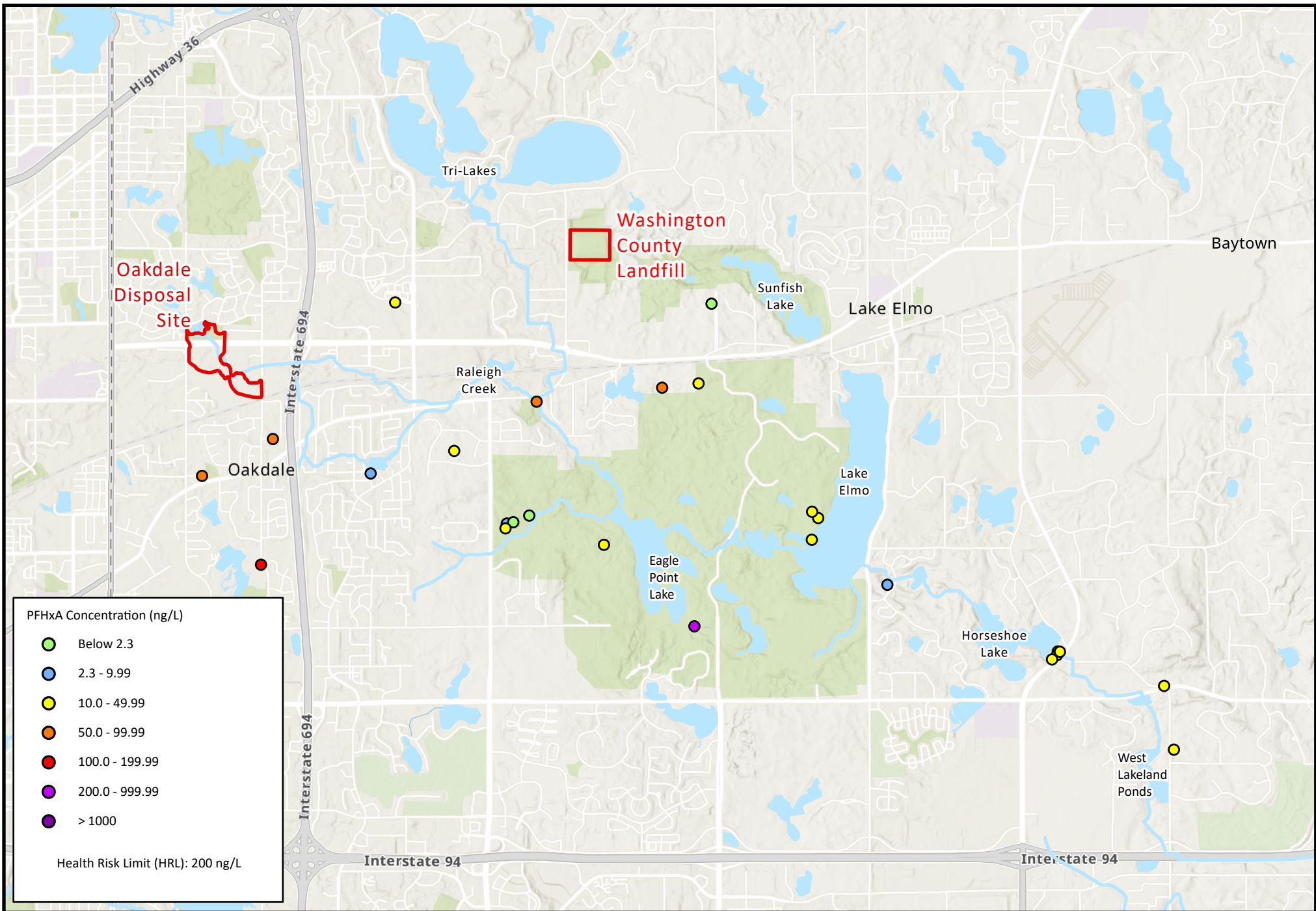
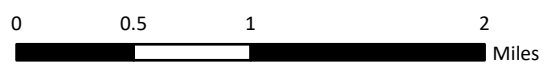


Figure 106: PFHxA Concentration in Prairie du Chien Aquifer
Project 1007 Feasibility Study



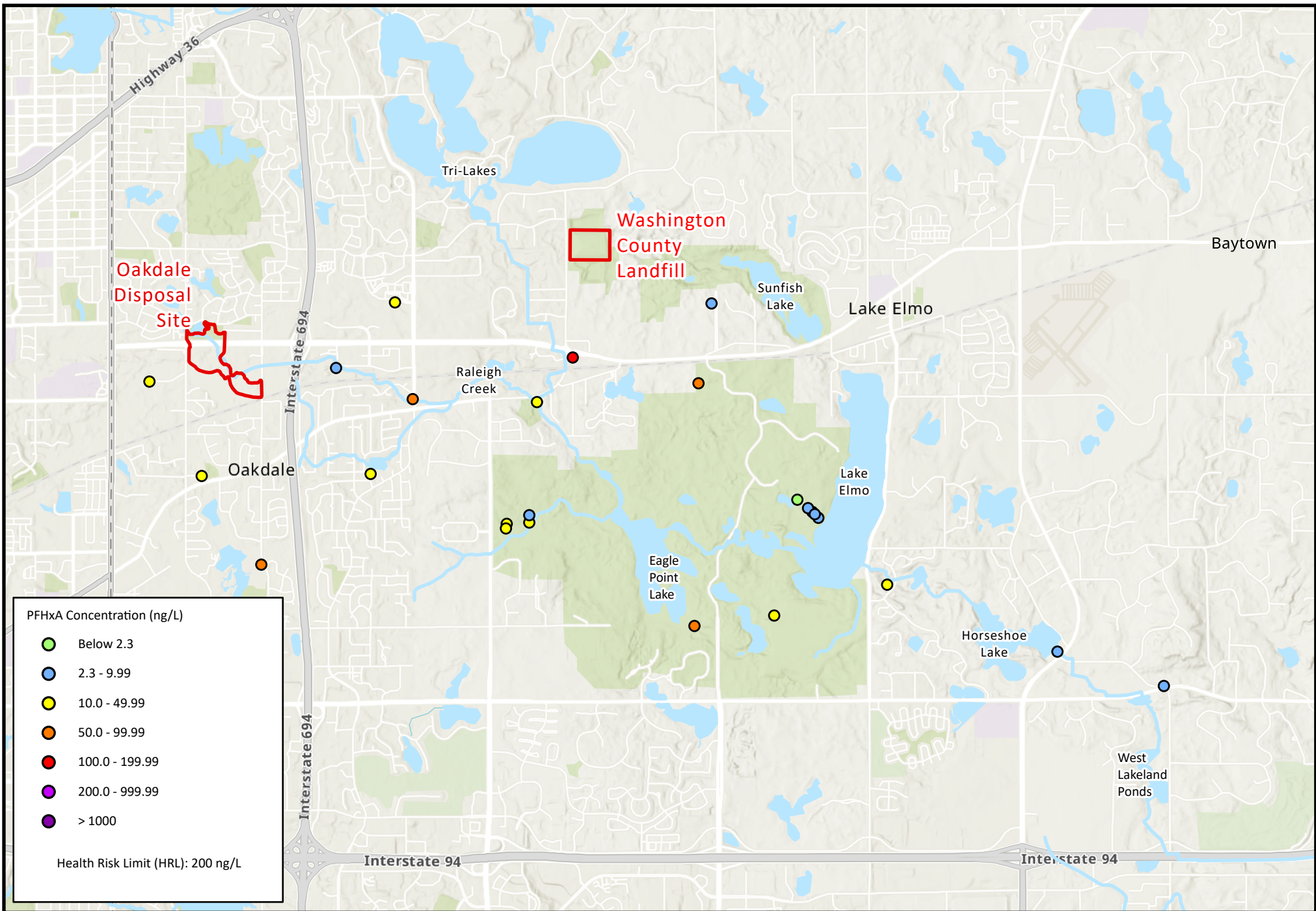
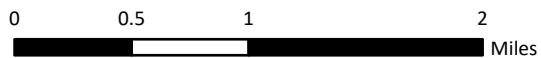


Figure 107: PFHxA Concentration in Jordan Aquifer
Project 1007 Feasibility Study



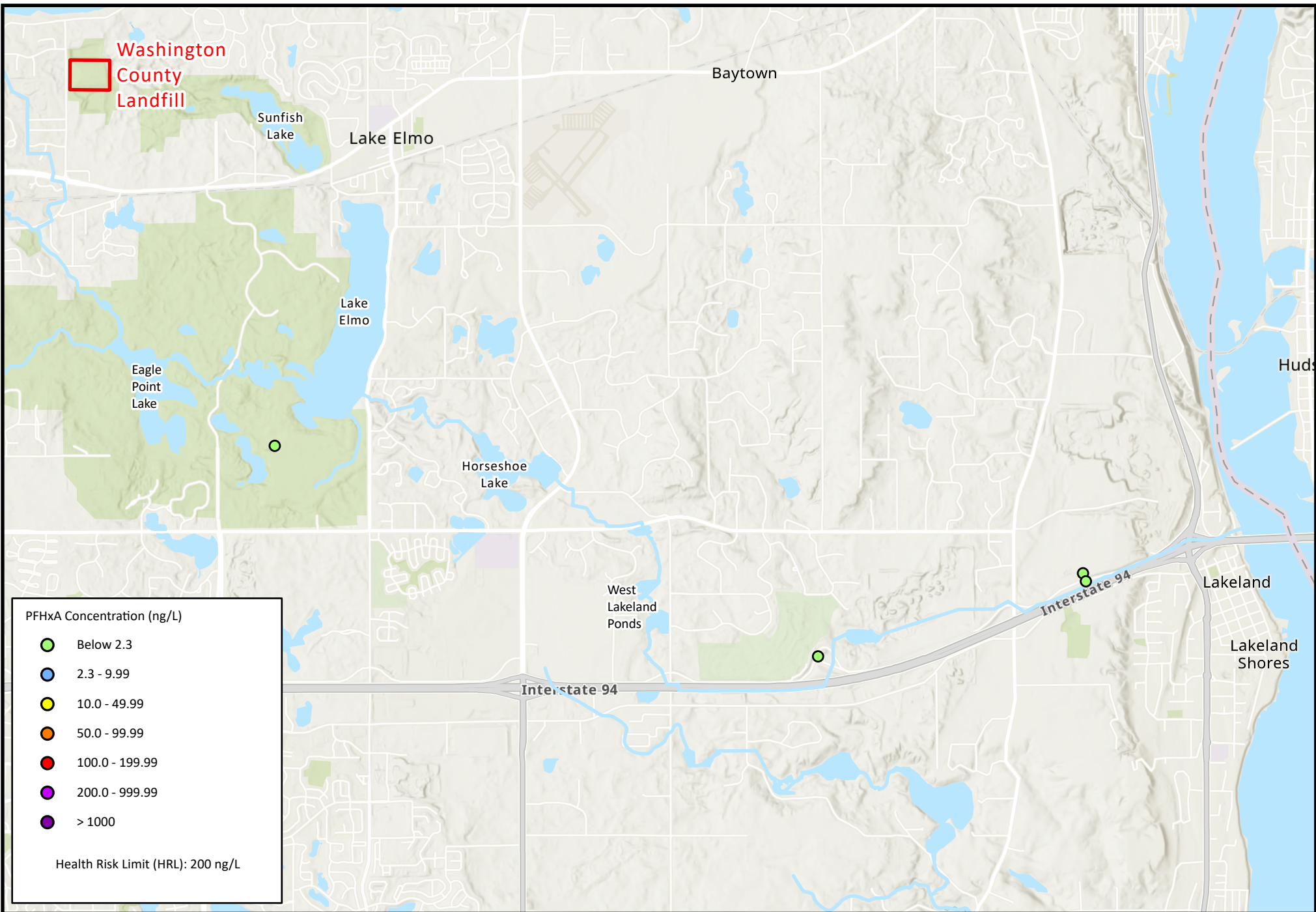
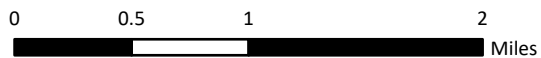


Figure 108: PFHxA Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study



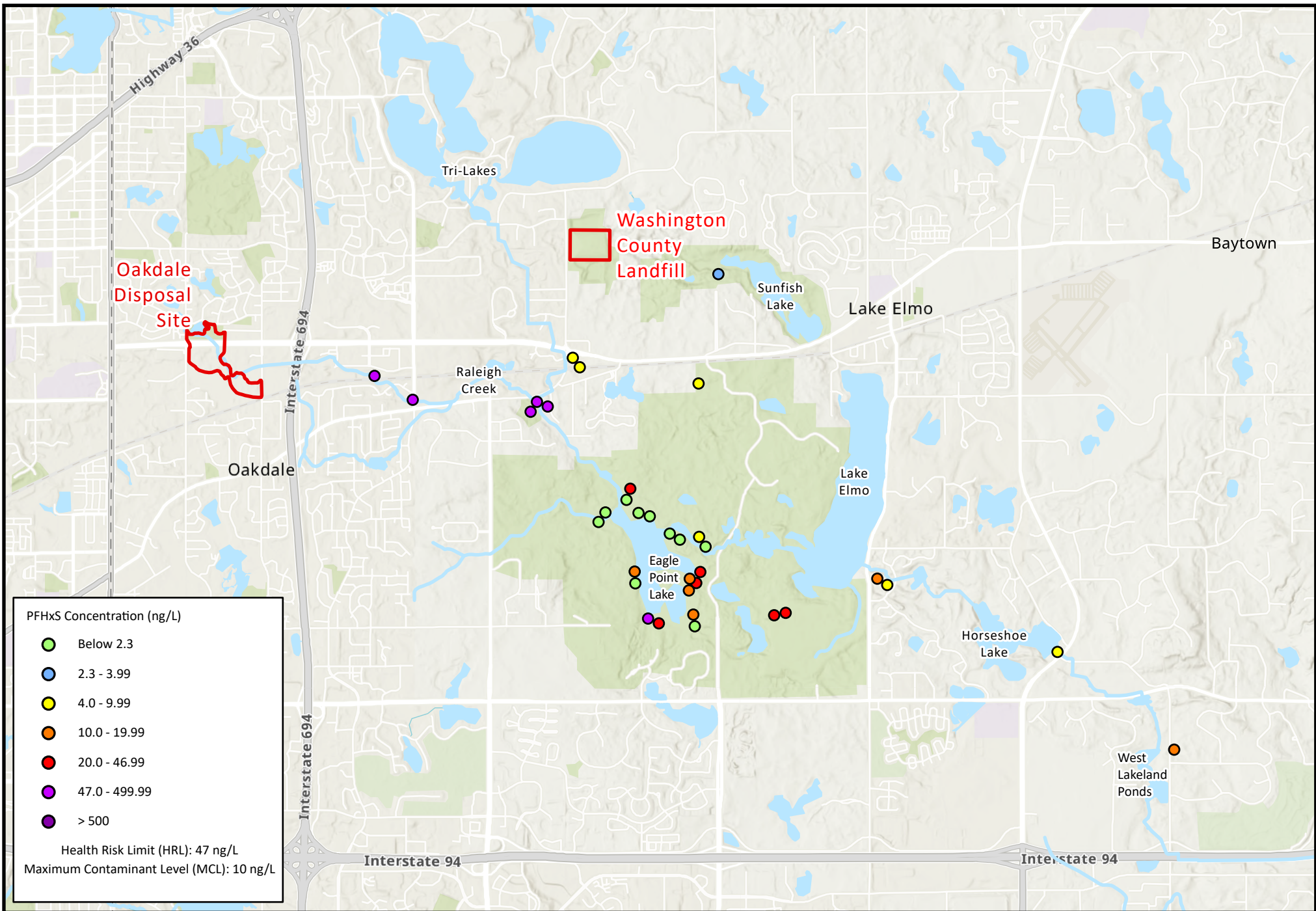
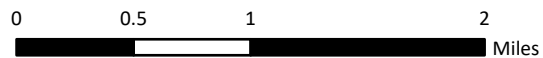


Figure 109: PFHxS Concentration in Quaternary Aquifer
Project 1007 Feasibility Study



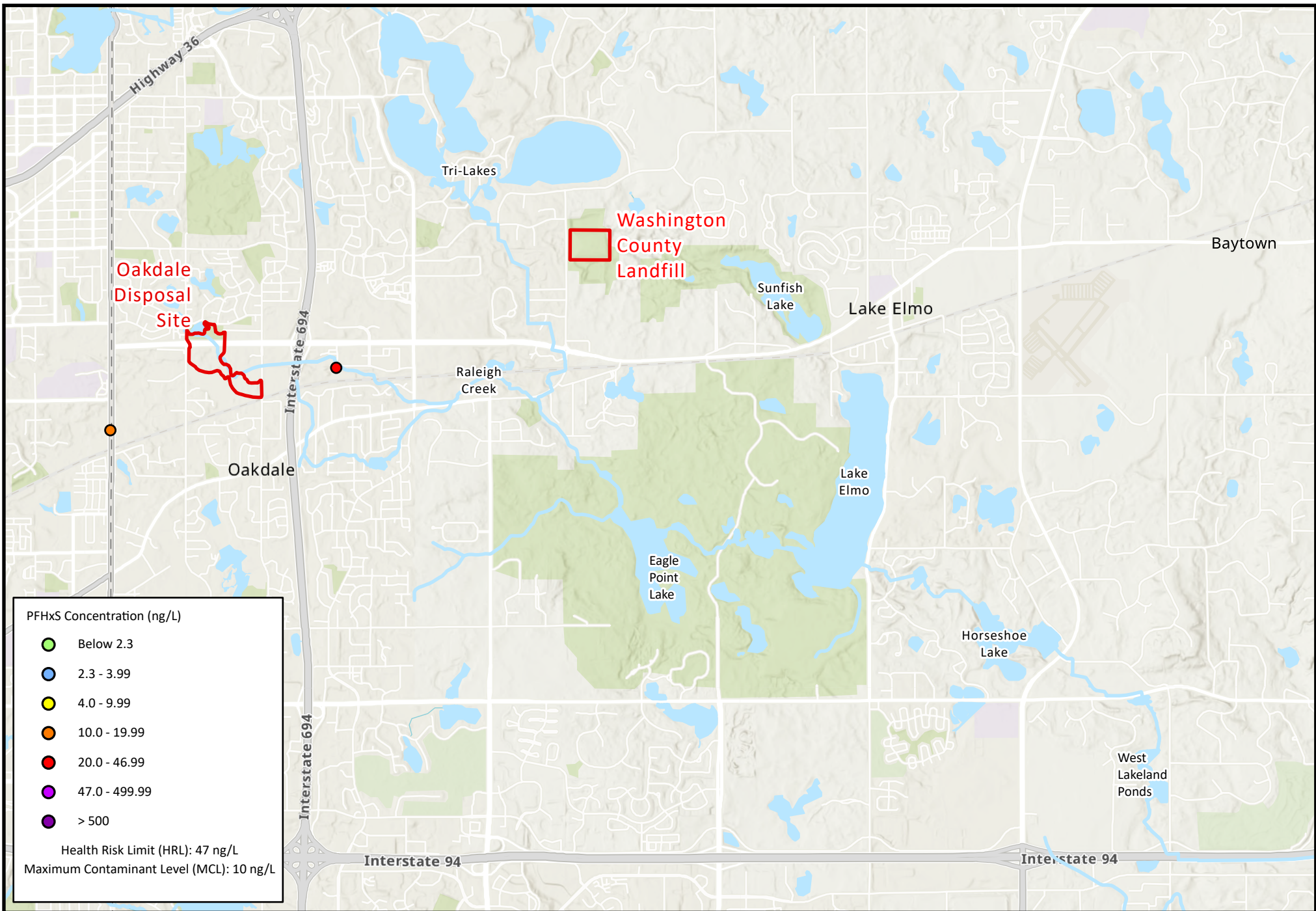
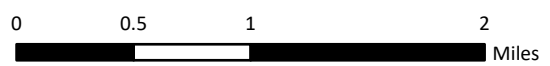


Figure 110: PFHxS Concentration in Platteville Aquifer
Project 1007 Feasibility Study



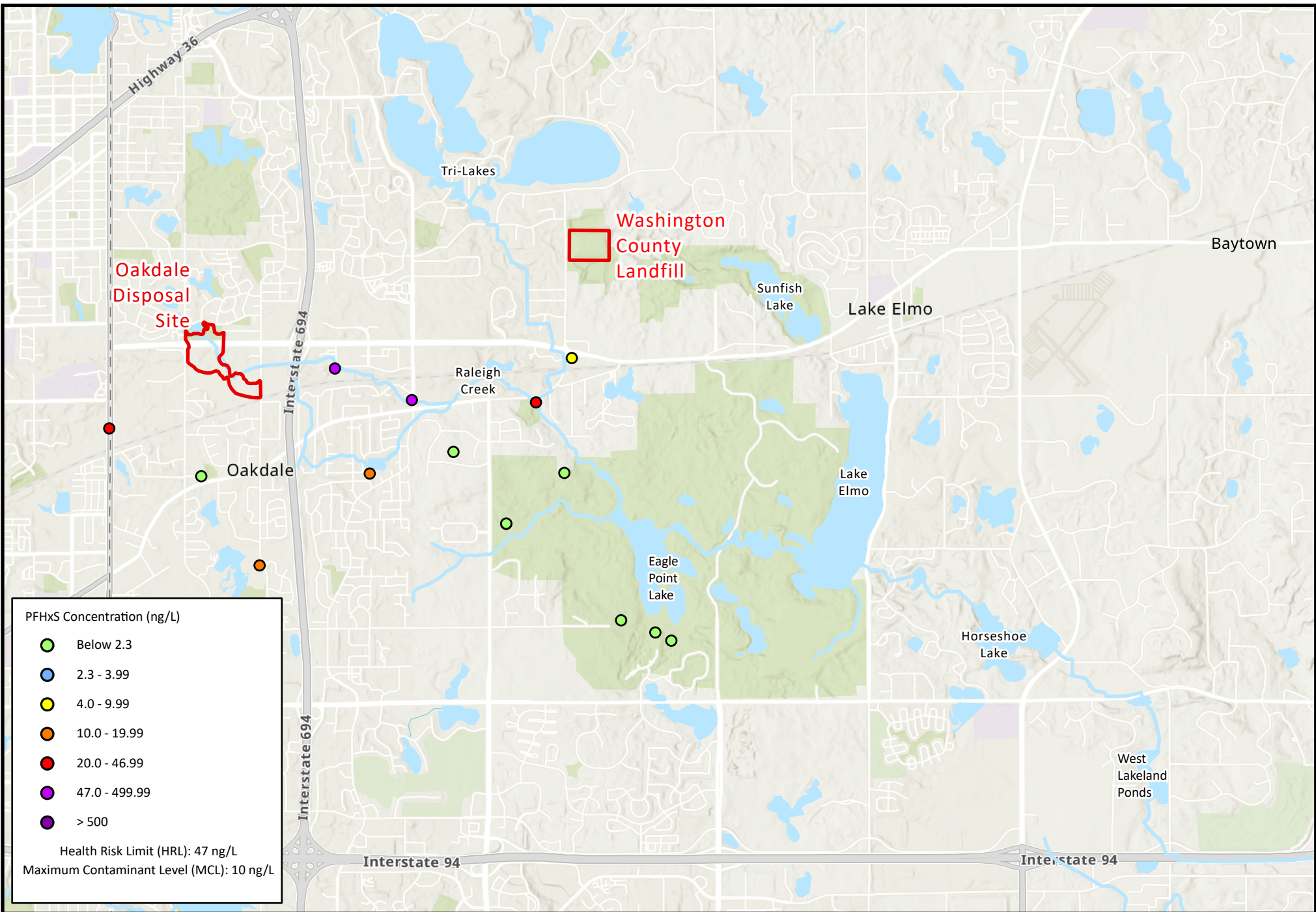
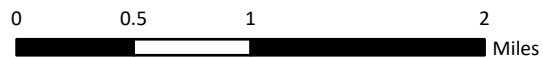


Figure 111: PFHxS Concentration in St. Peter Aquifer
Project 1007 Feasibility Study



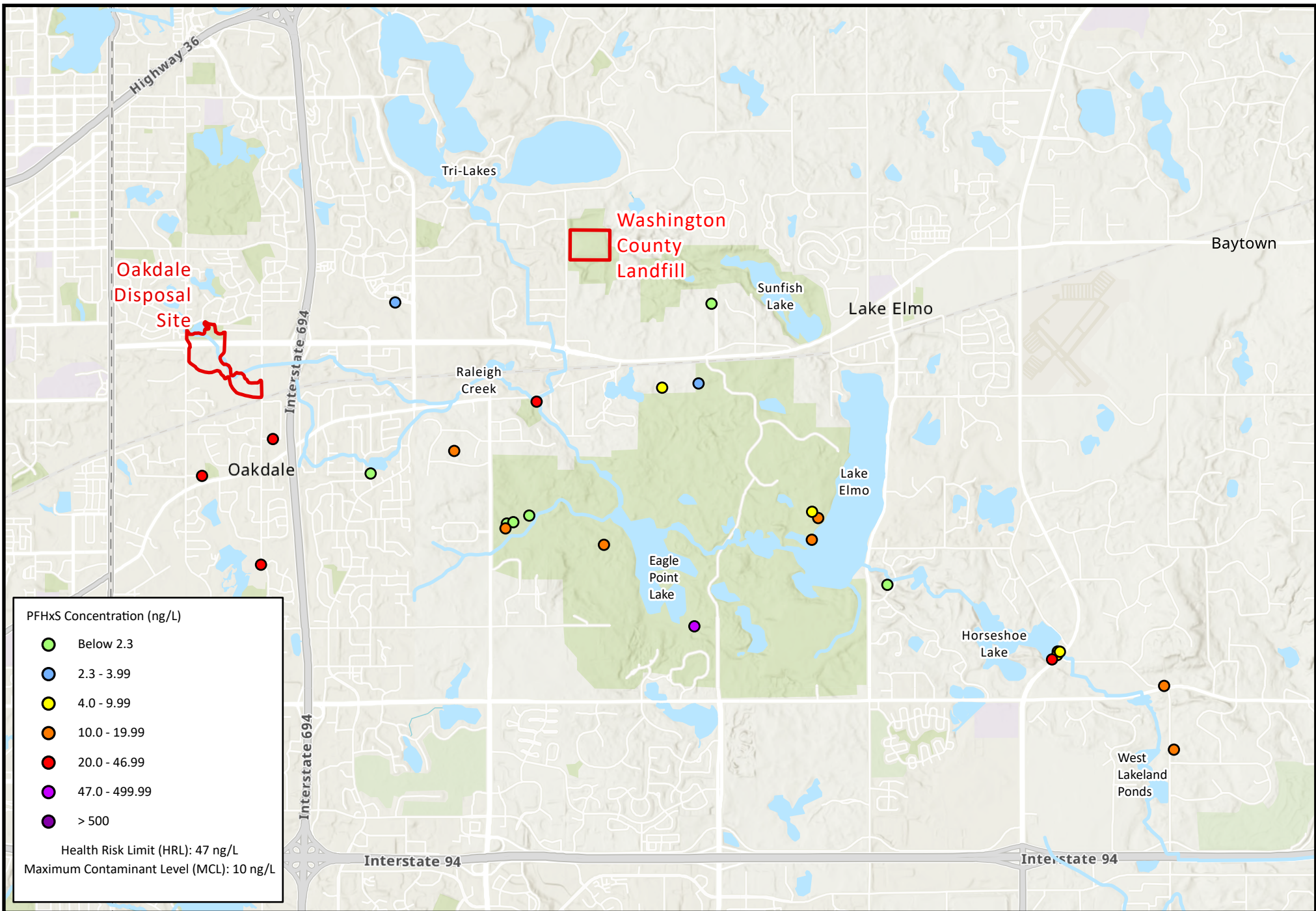
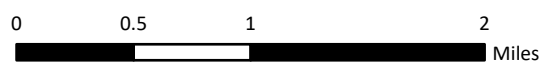


Figure 112: PFHxS Concentration in Prairie du Chien Aquifer
Project 1007 Feasibility Study



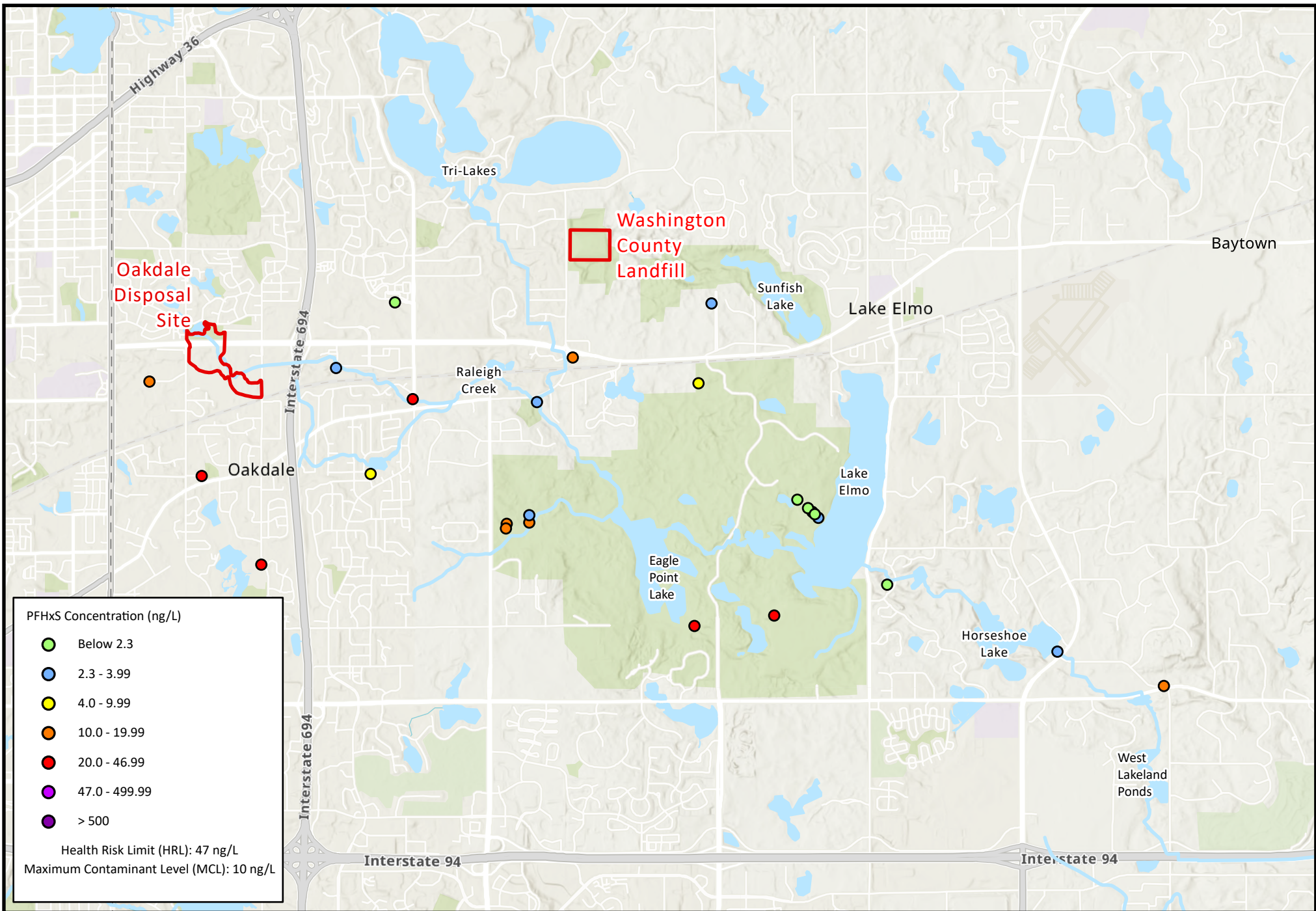
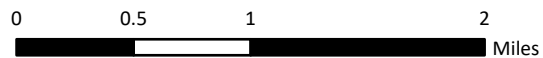


Figure 113: PFHxS Concentration in Jordan Aquifer
 Project 1007 Feasibility Study



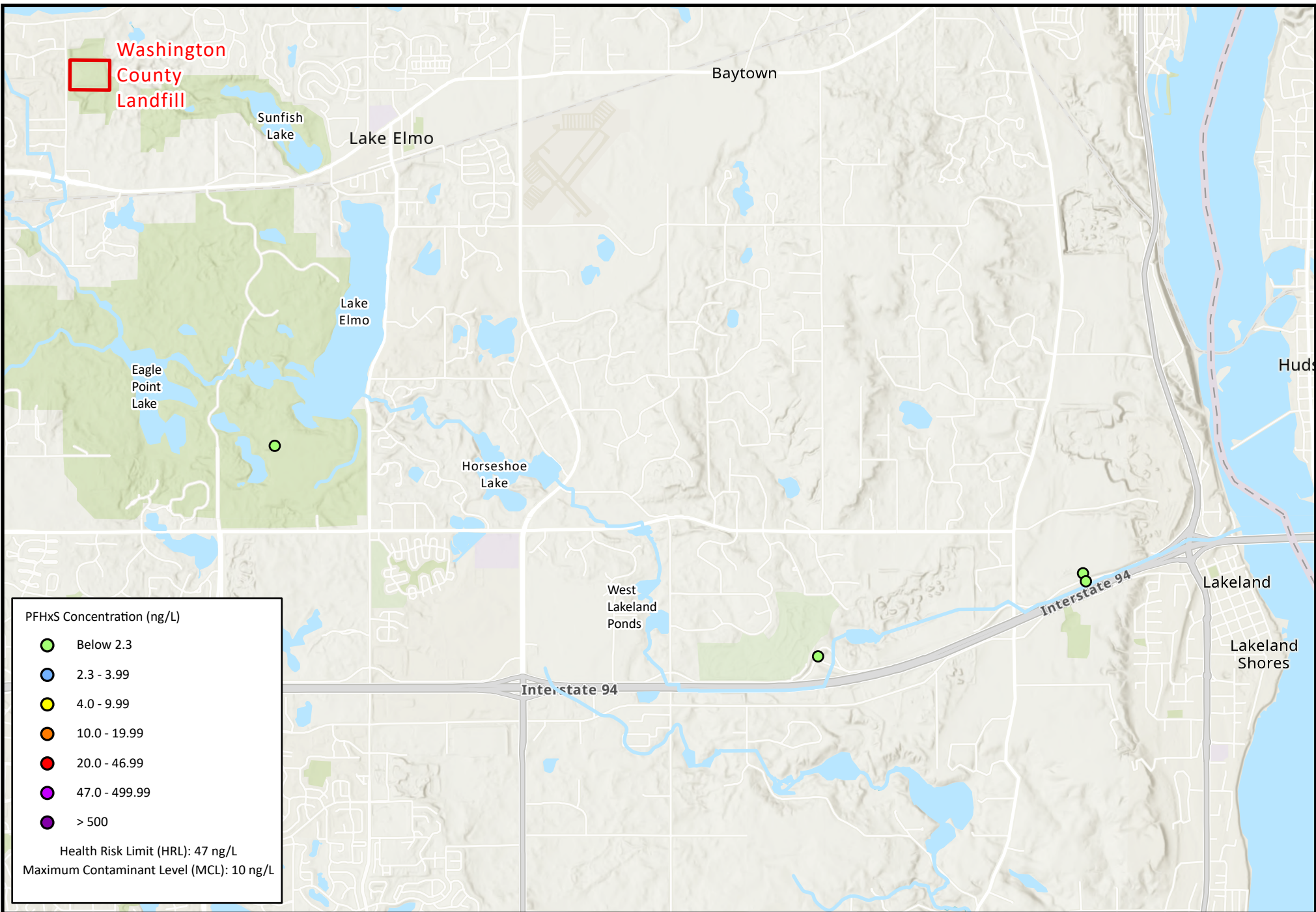


Figure 114: PFHxS Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study

0 0.5 1 2 Miles

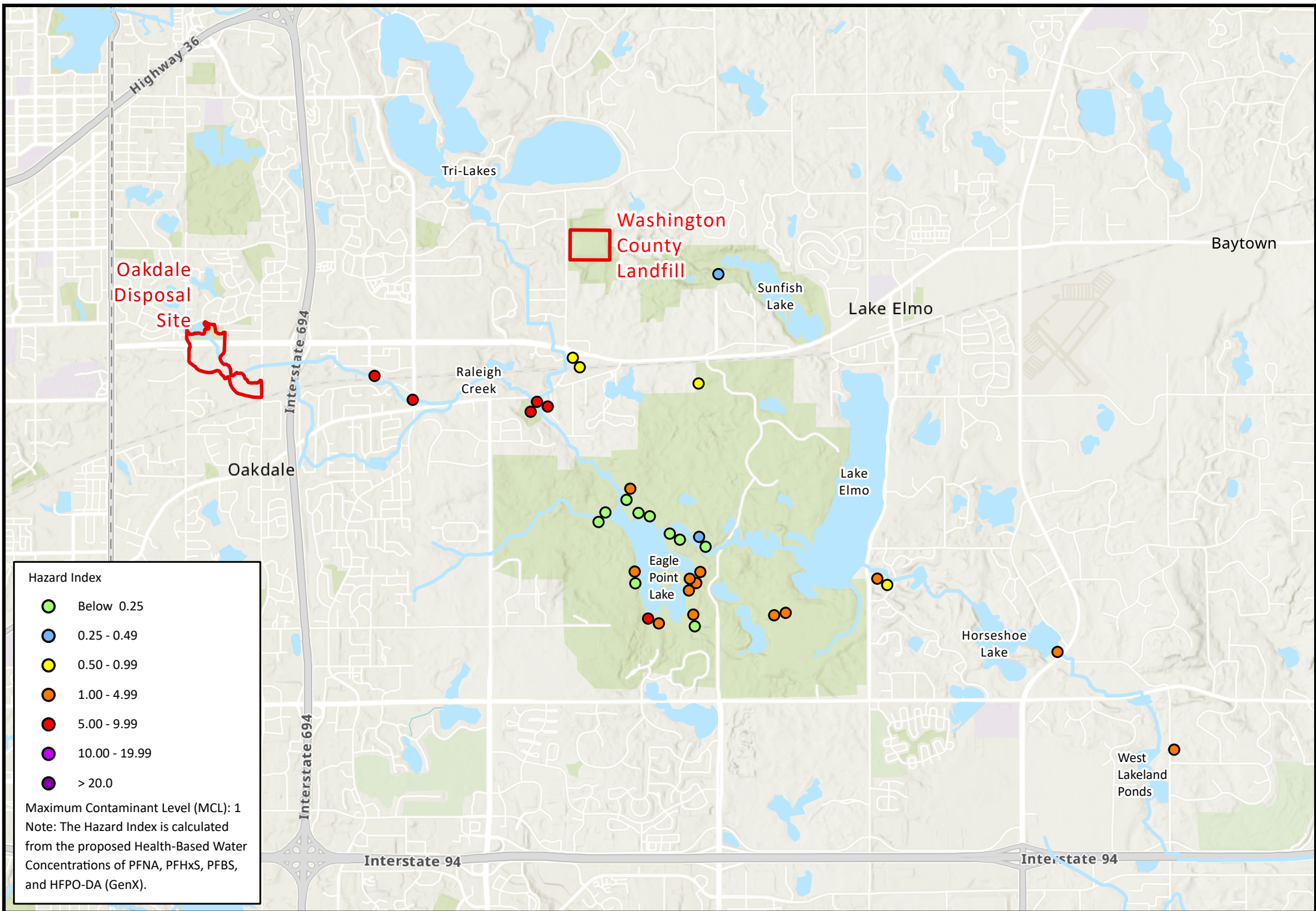
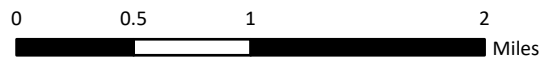


Figure 115: Hazard Index Concentration in Quaternary Aquifer
 Project 1007 Feasibility Study



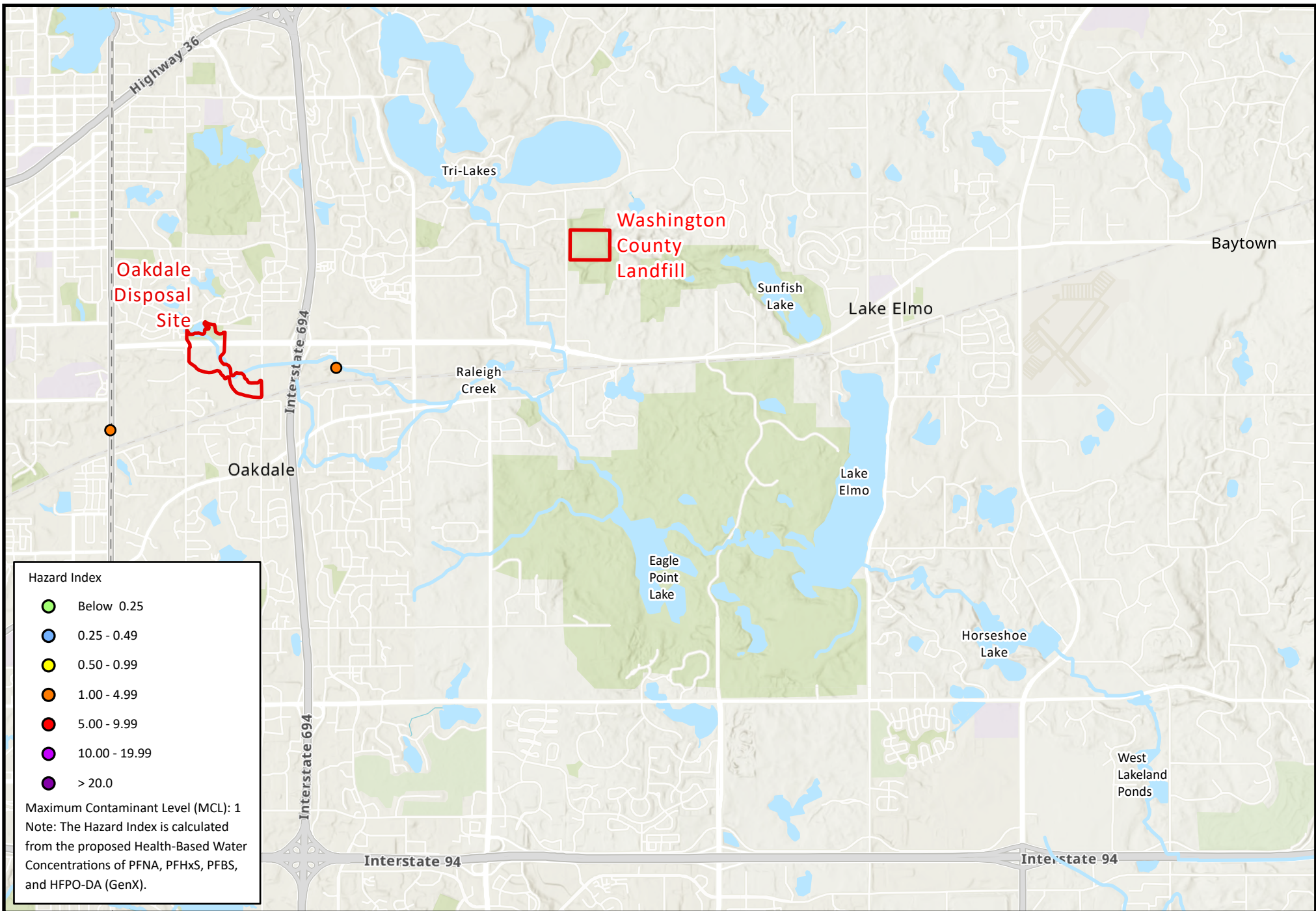


Figure 116: Hazard Index Concentration in Platteville Aquifer
Project 1007 Feasibility Study

0 0.5 1 2 Miles

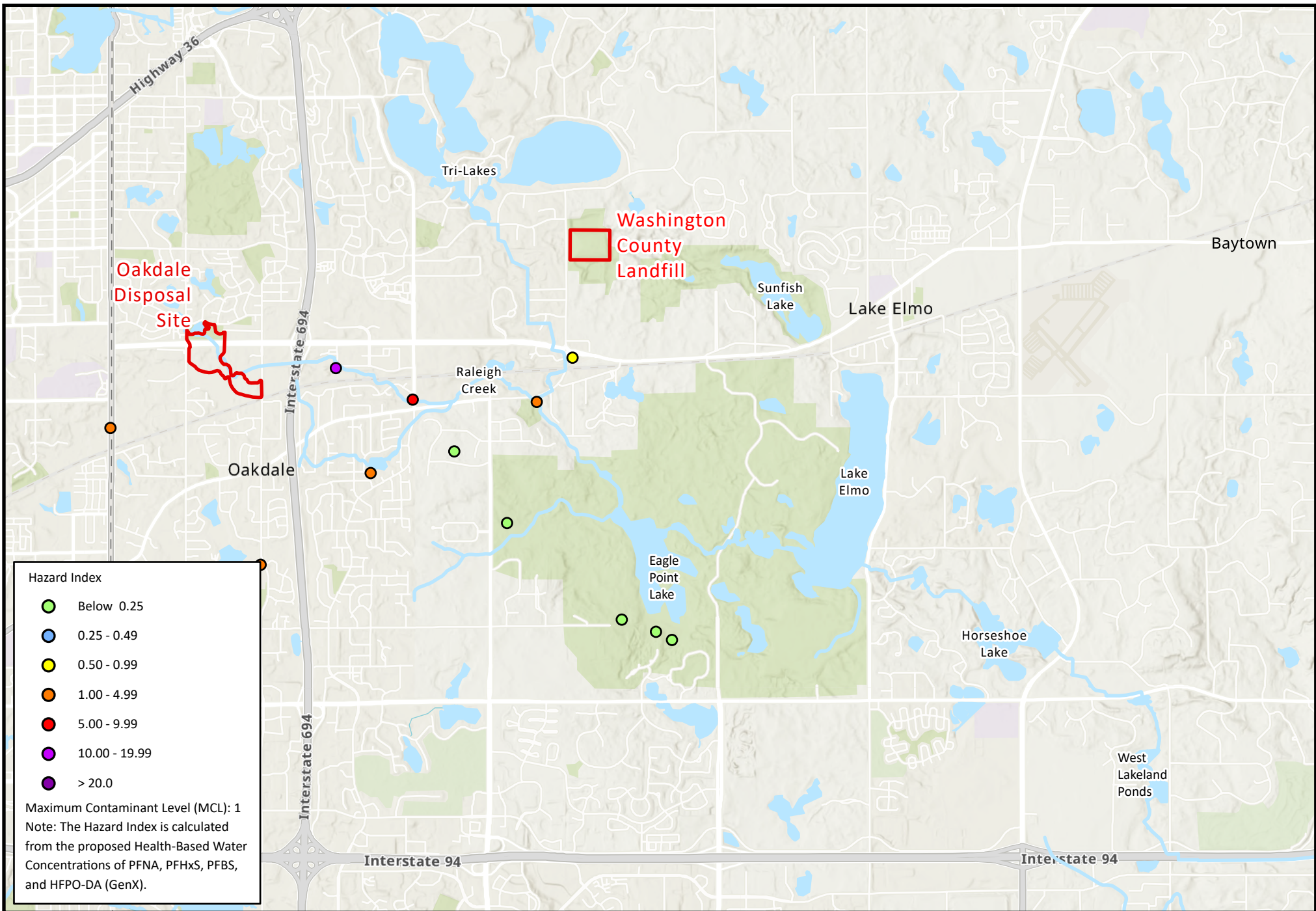
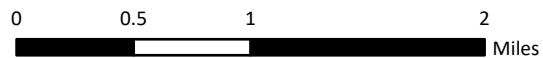


Figure 117: Hazard Index Concentration in St. Peter Aquifer
 Project 1007 Feasibility Study



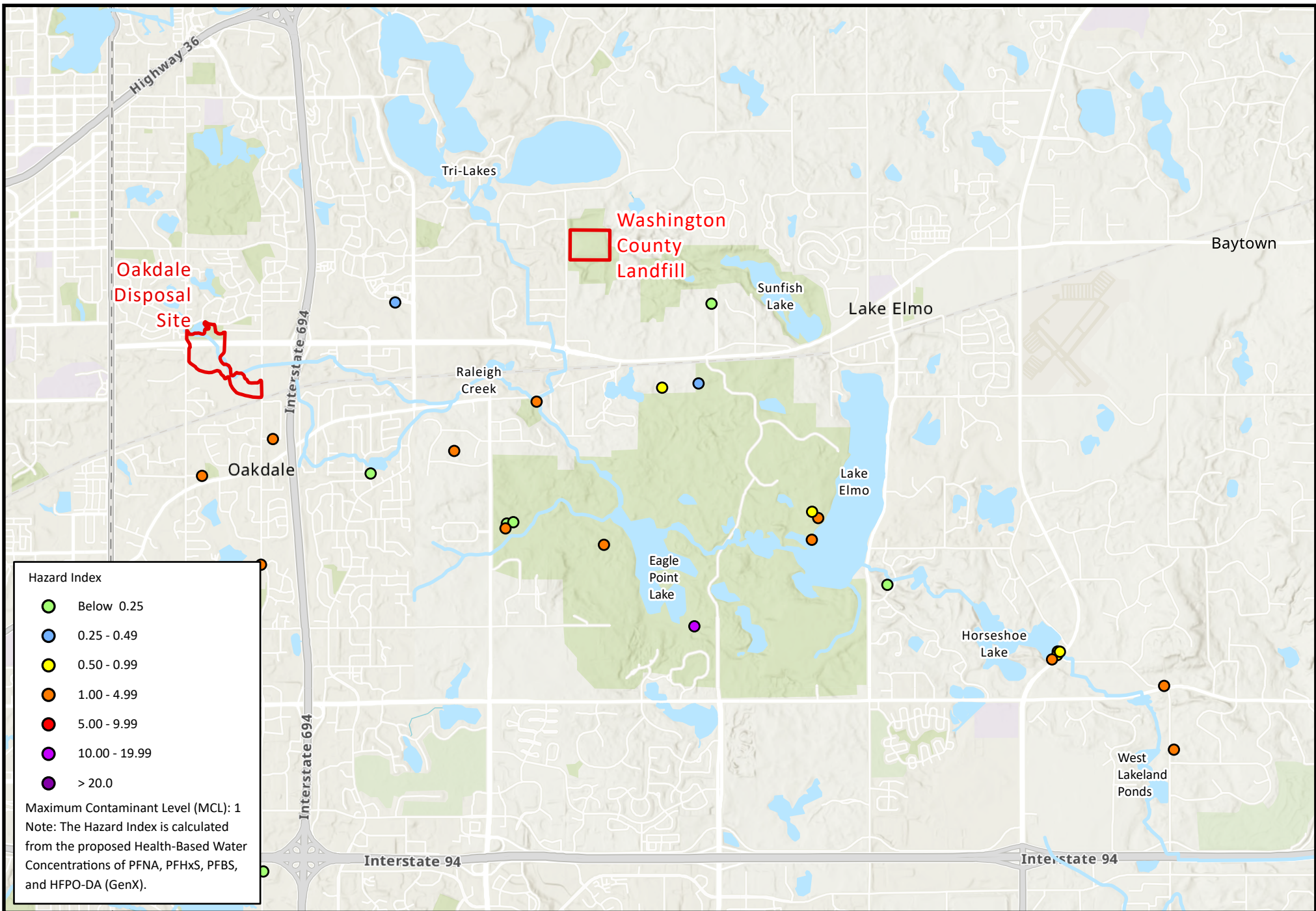
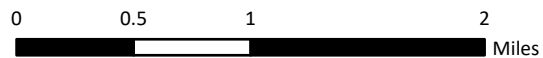


Figure 118: Hazard Index Concentration in Prairie du Chien Aquifer
Project 1007 Feasibility Study



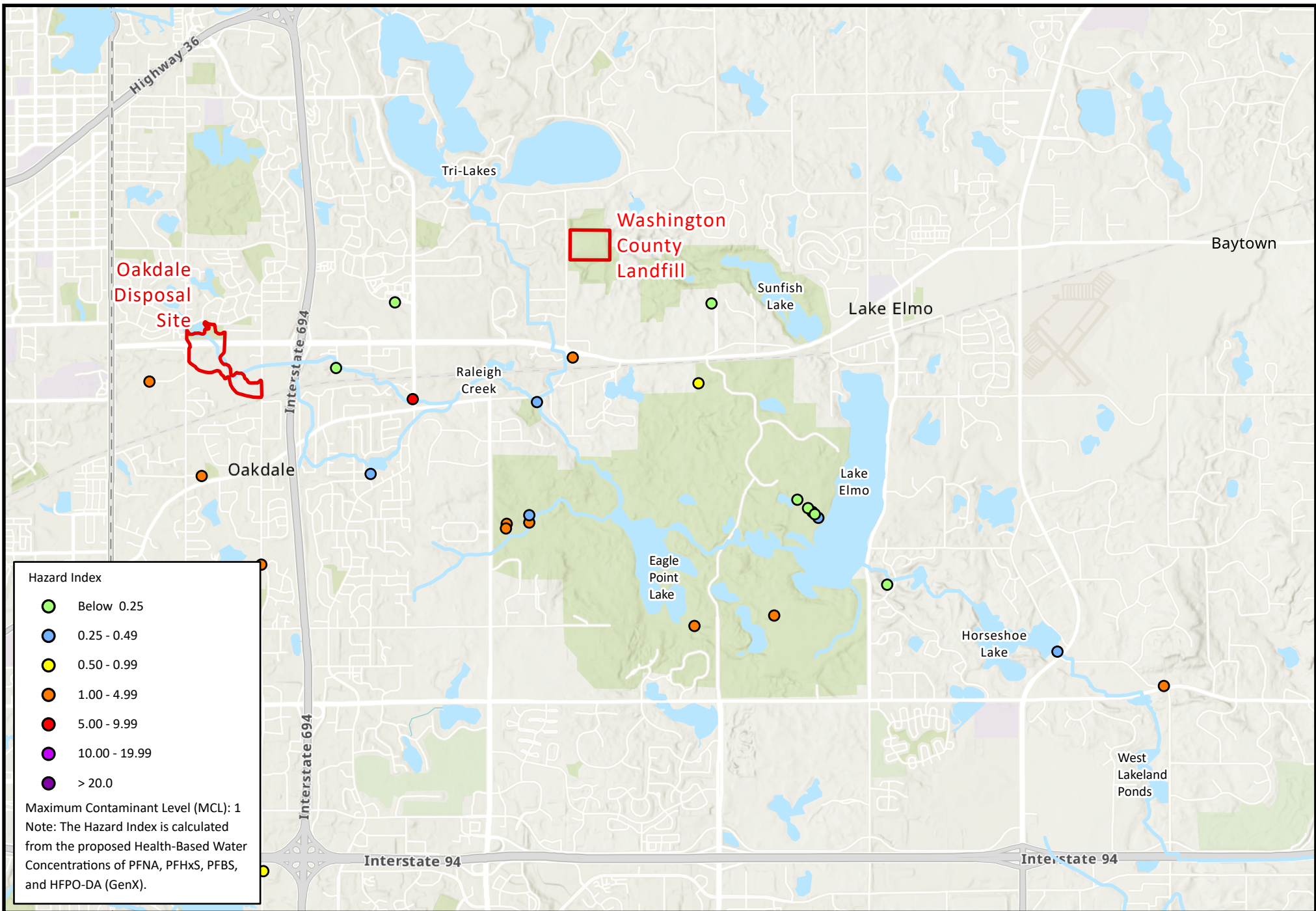
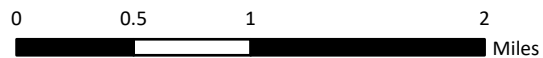


Figure 119: Hazard Index Concentration in Jordan Aquifer
Project 1007 Feasibility Study



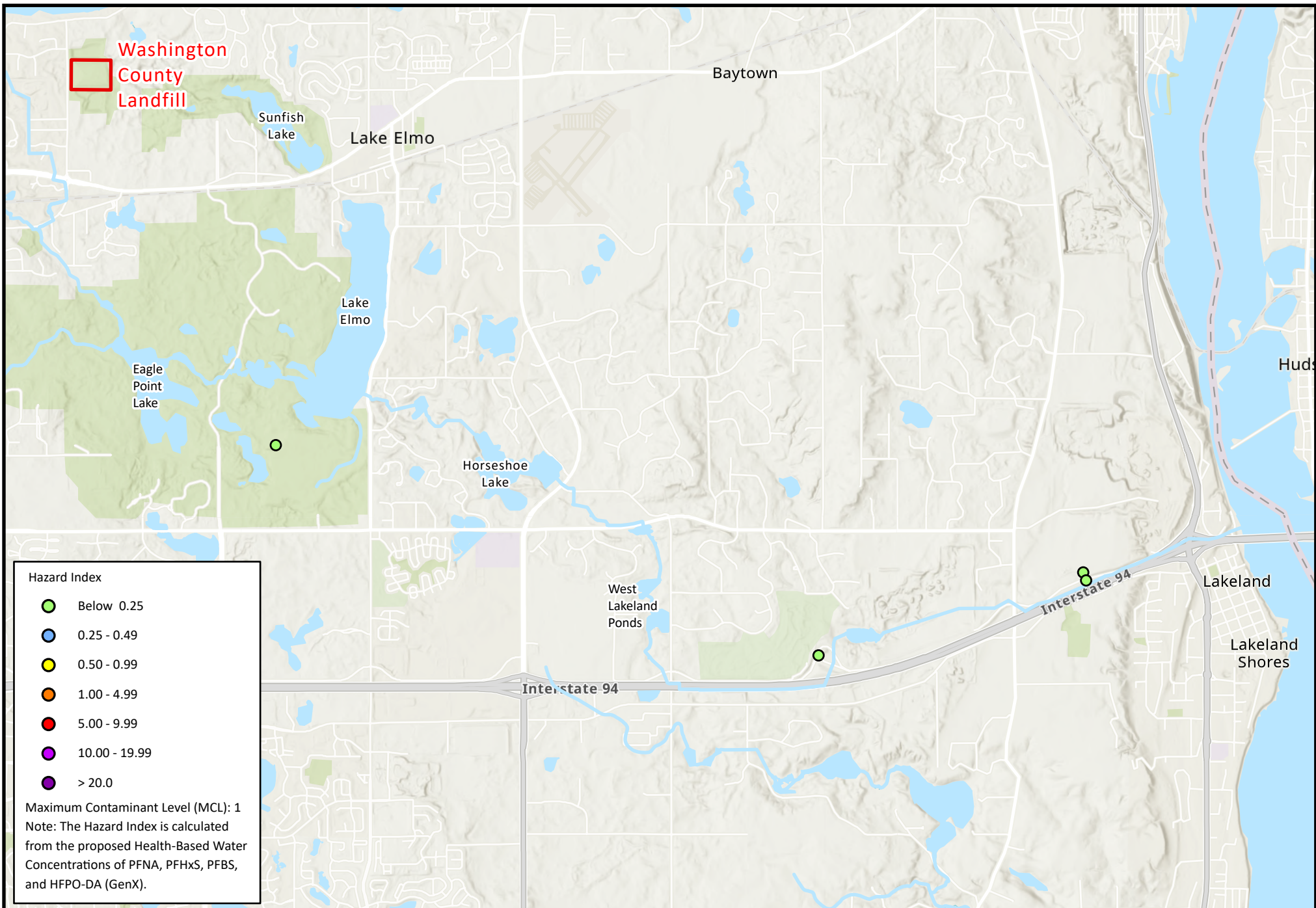
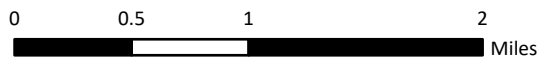


Figure 120: Hazard Index Concentration in St. Lawrence, Tunnel City Group, and Wonewoc Aquifer
Project 1007 Feasibility Study



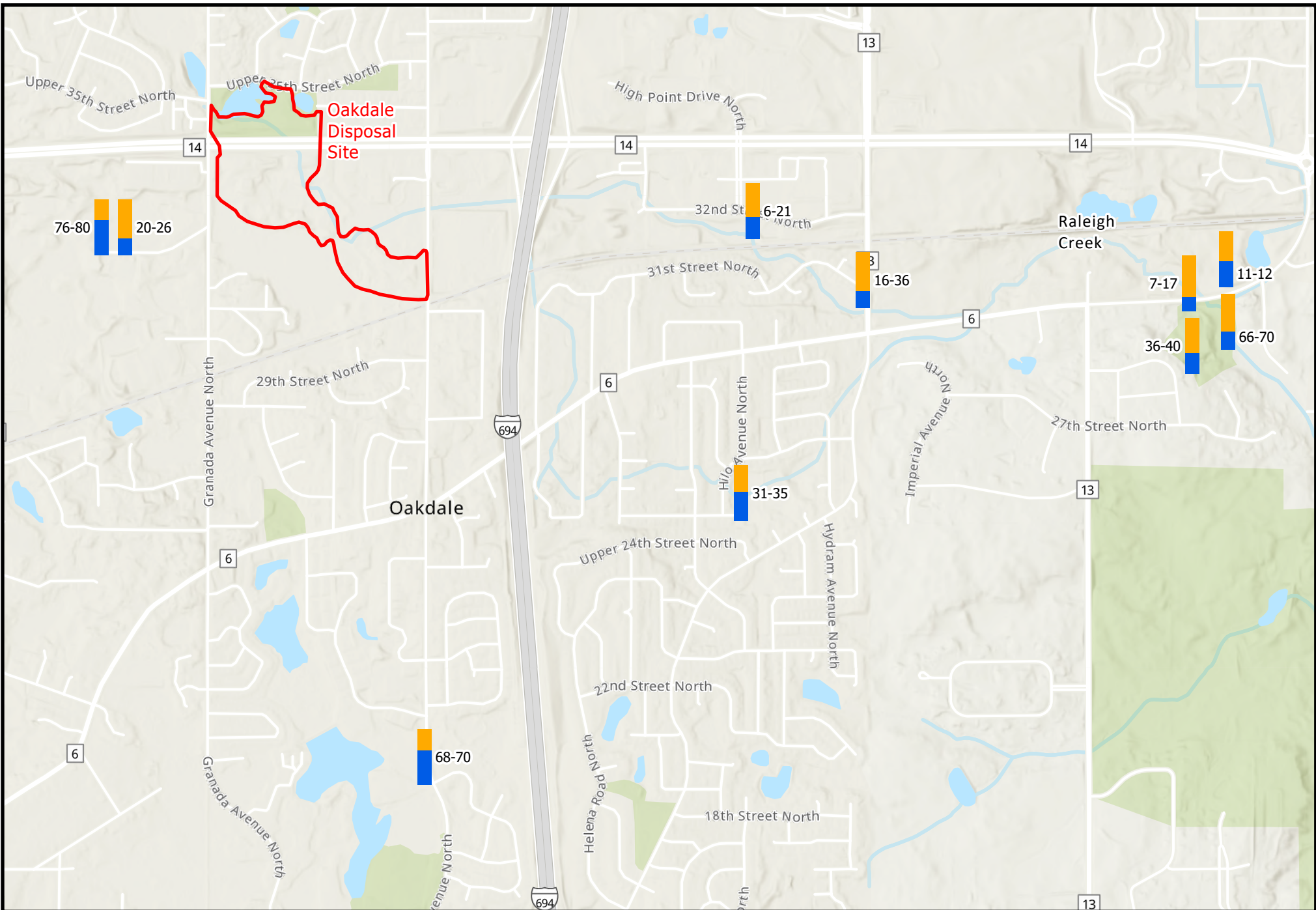
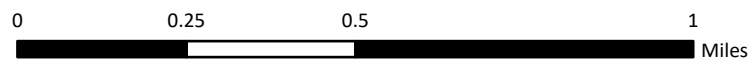


Figure 121: PFOS Branched-Linear Analysis in Quaternary Aquifer (Raleigh Creek)
Project 1007 Feasibility Study



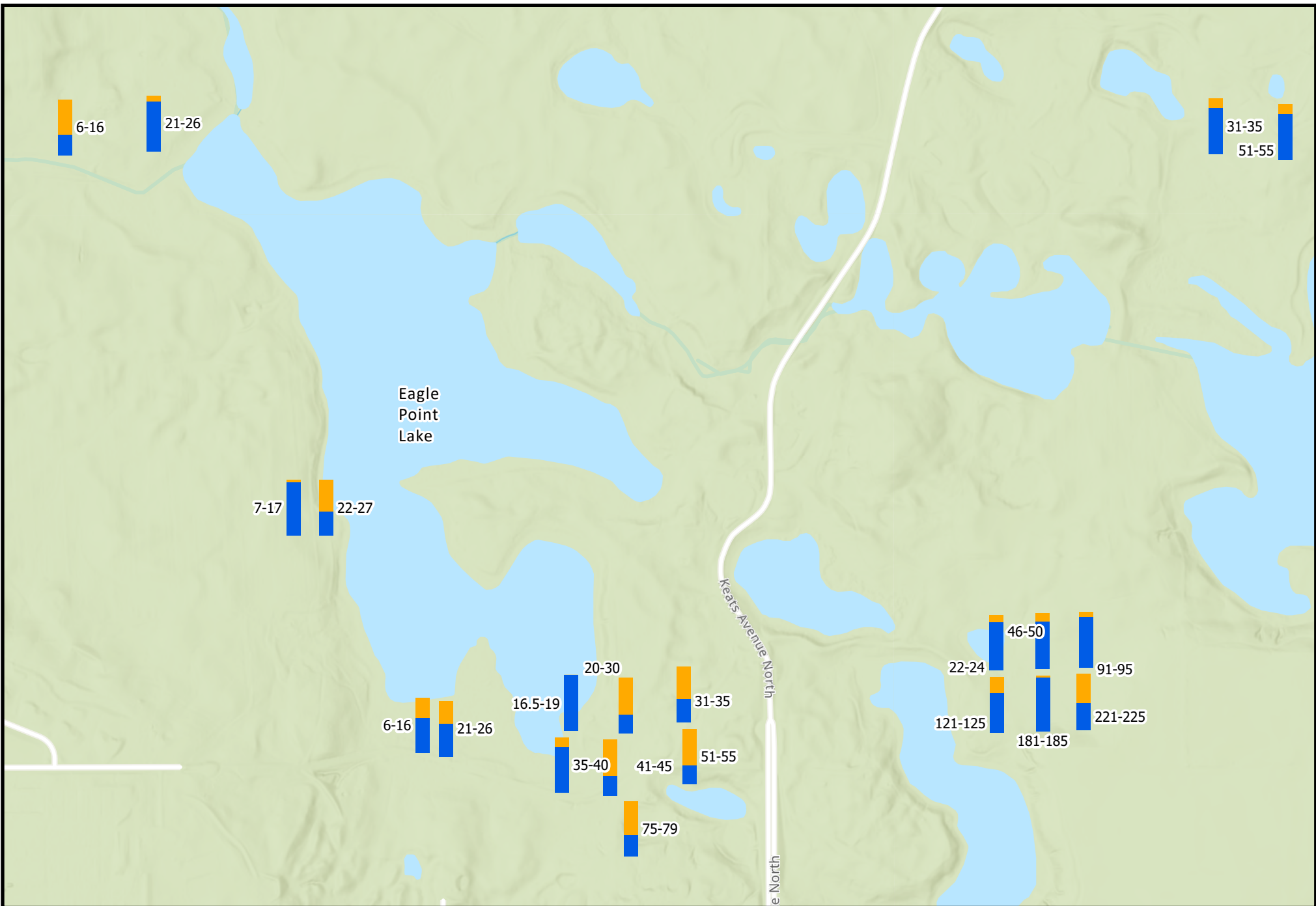
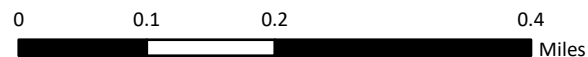


Figure 122: PFOS Branched-Linear Analysis in Quaternary Aquifer (Eagle Point Lake)
Project 1007 Feasibility Study



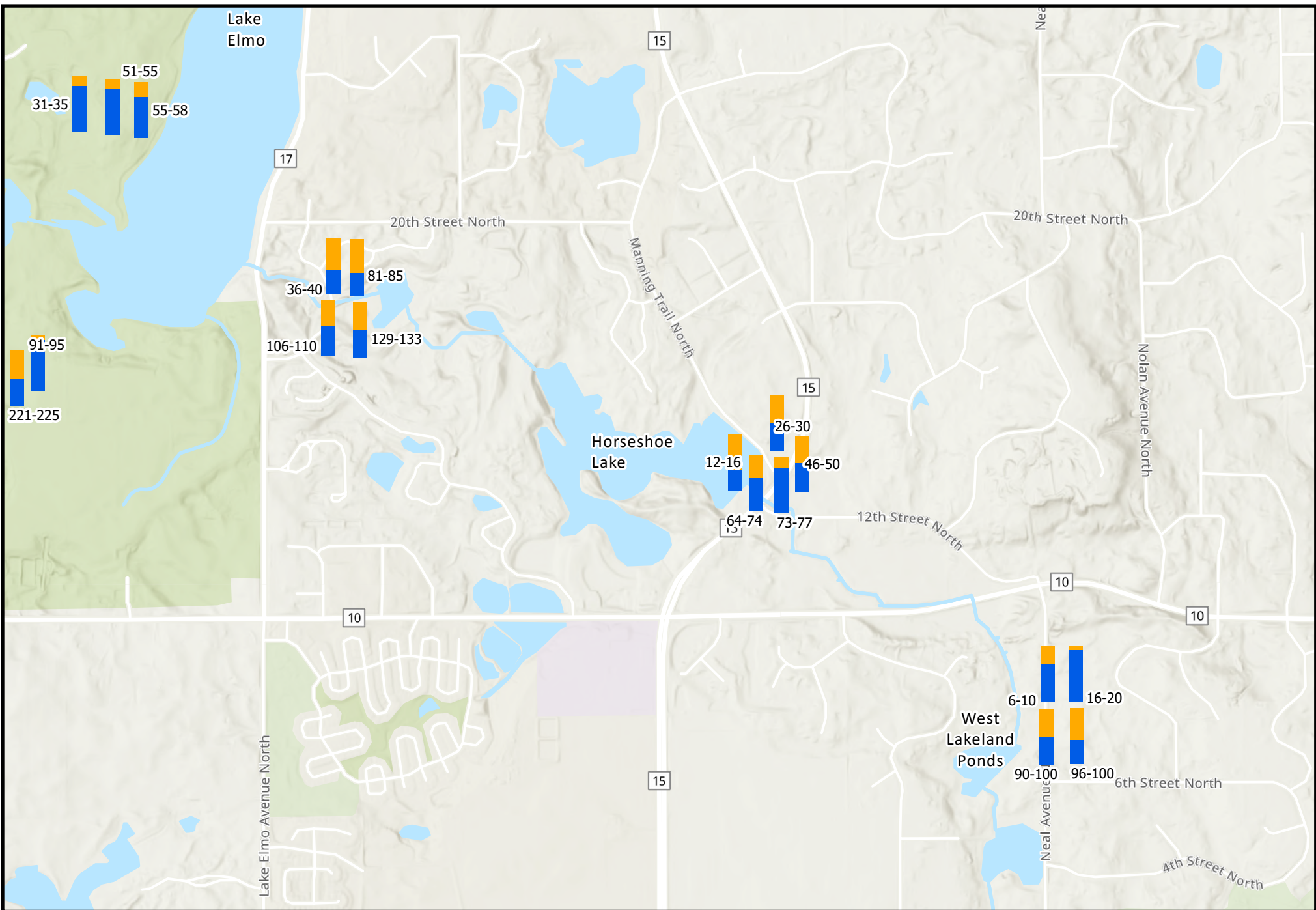
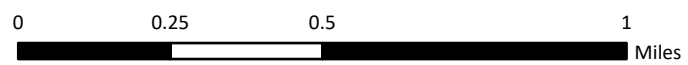
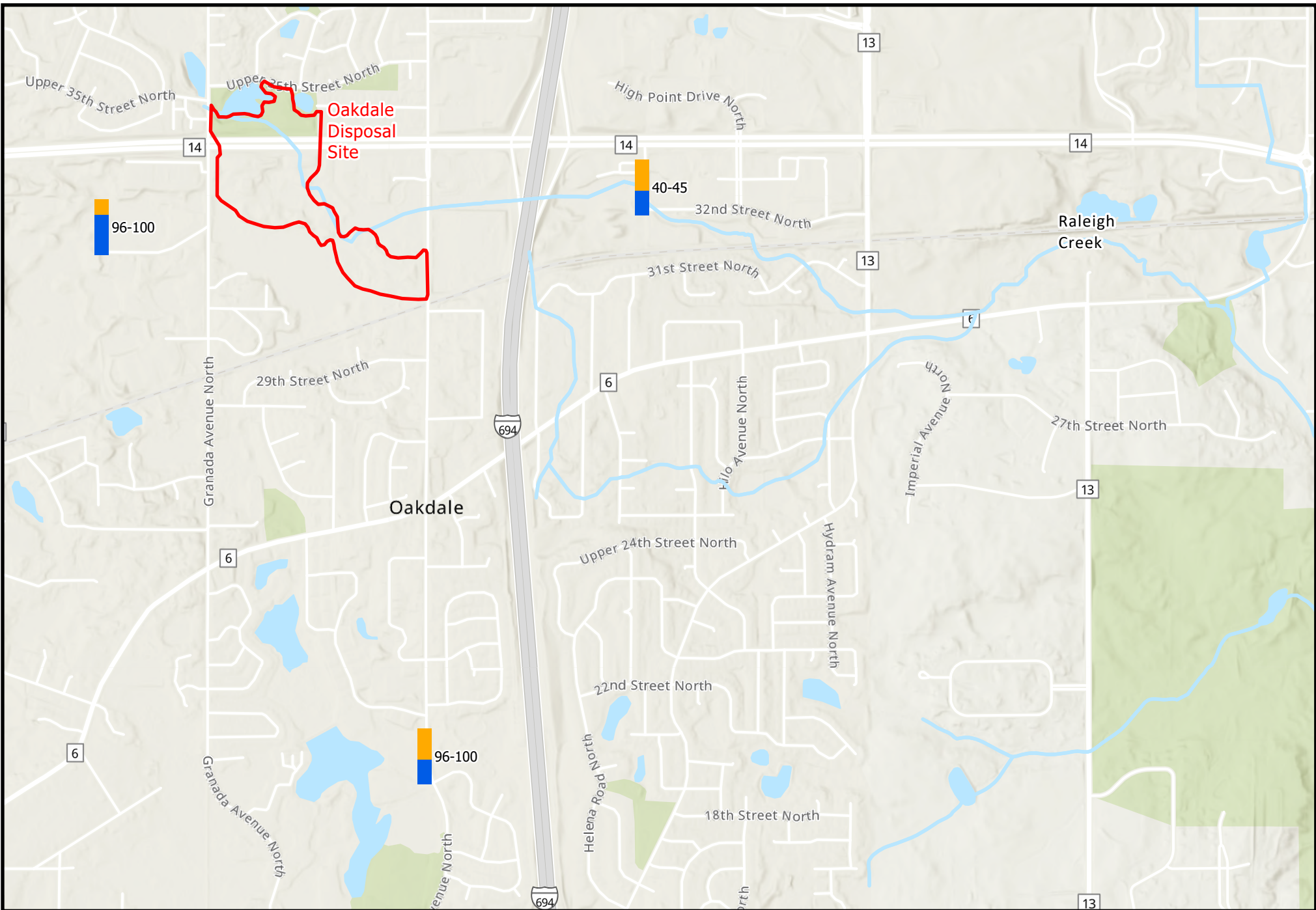
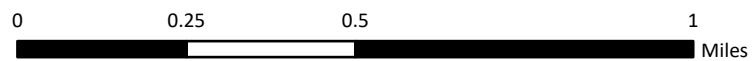


Figure 123: PFOS Branched-Linear Analysis in Quaternary Aquifer (Horseshoe Lake) Project 1007 Feasibility Study





**Figure 124: PFOS Branched-Linear Analysis
in Platteville Aquifer
Project 1007 Feasibility Study**



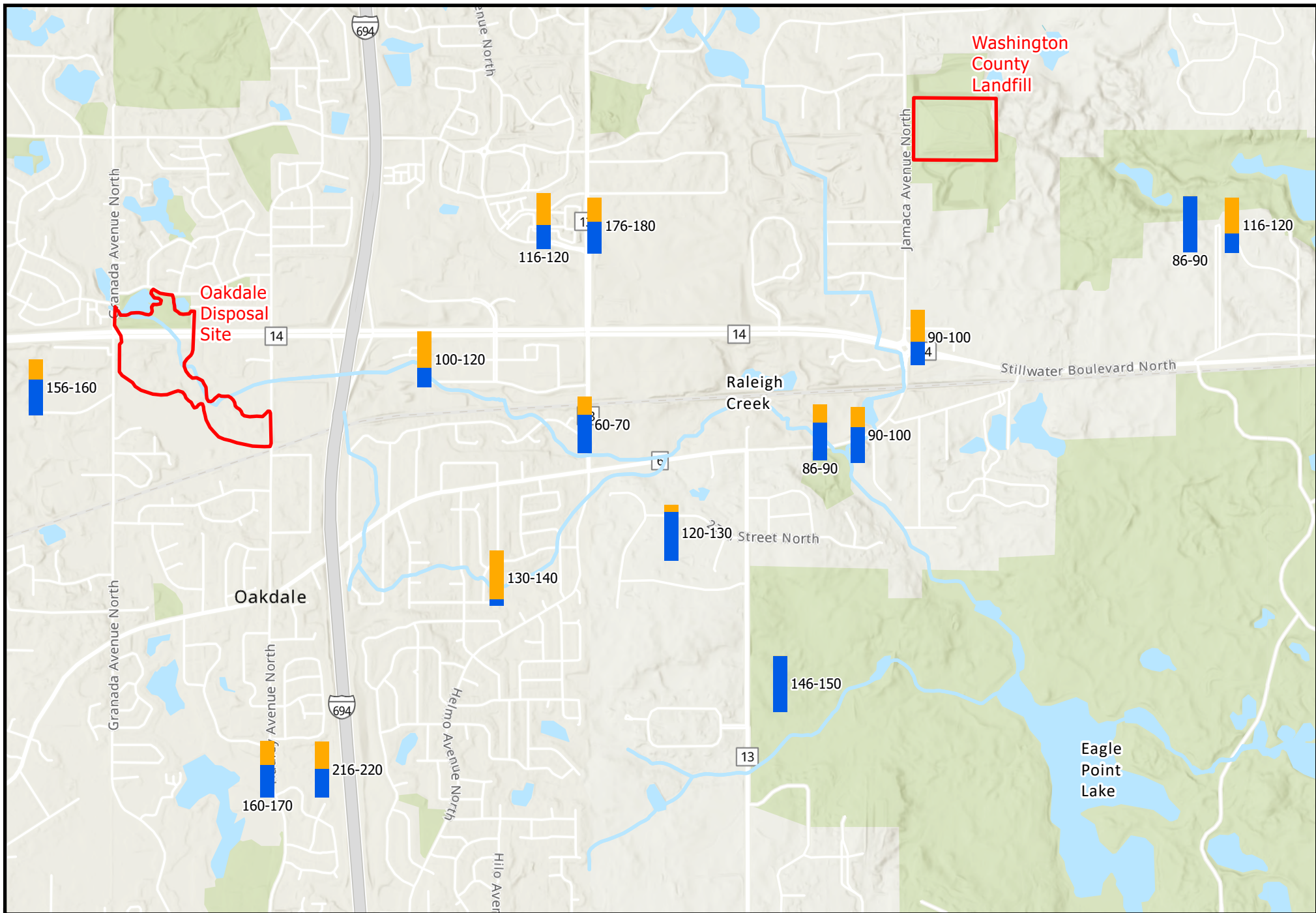
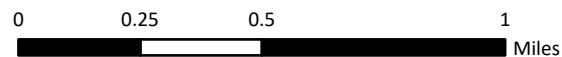


Figure 125: PFOS Branched-Linear Analysis in St. Peter Aquifer
Project 1007 Feasibility Study



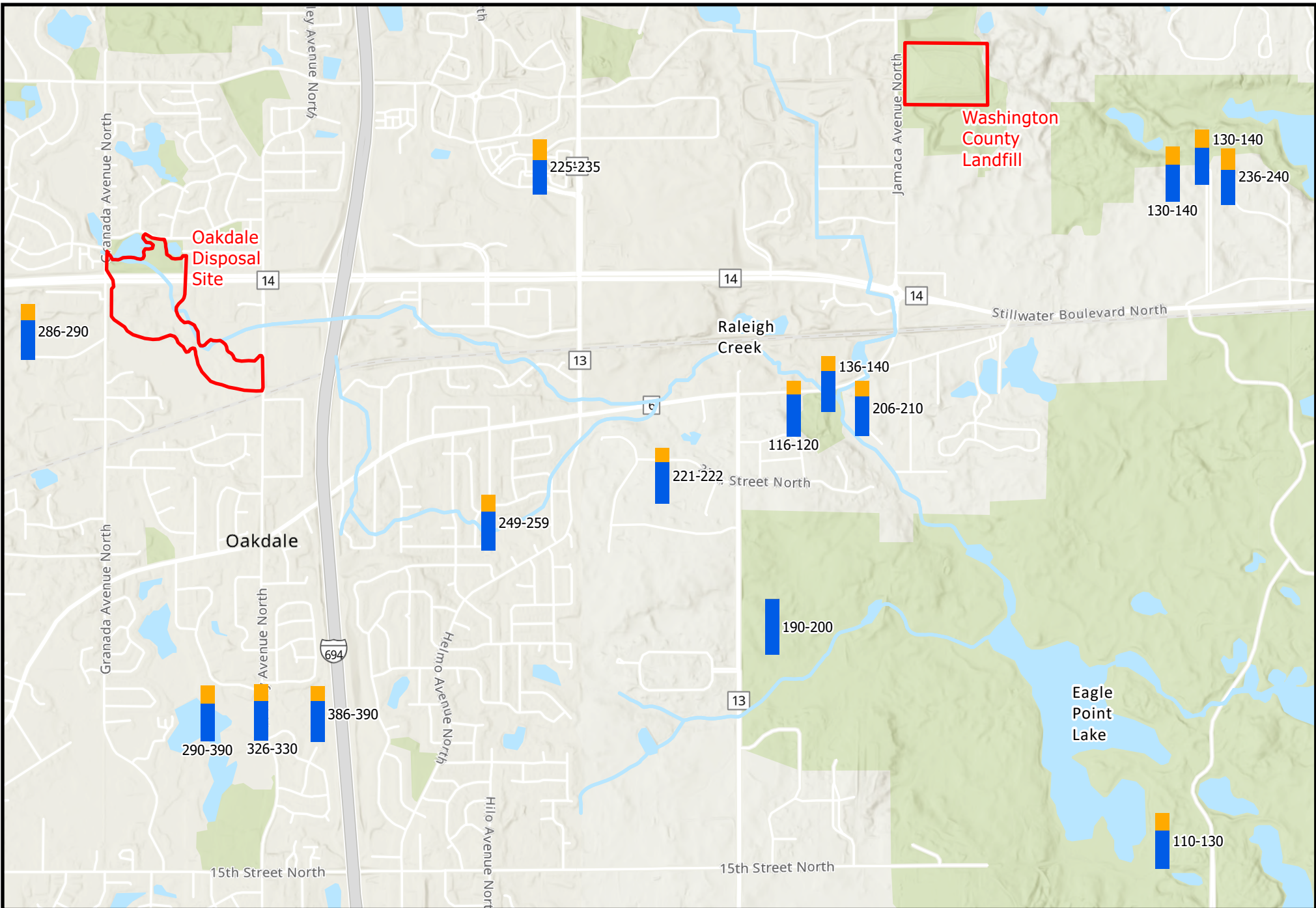
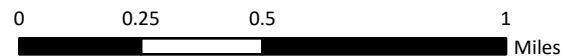


Figure 126: PFOS Branched-Linear Analysis in Prairie du Chien Aquifer (Raleigh Creek) Project 1007 Feasibility Study



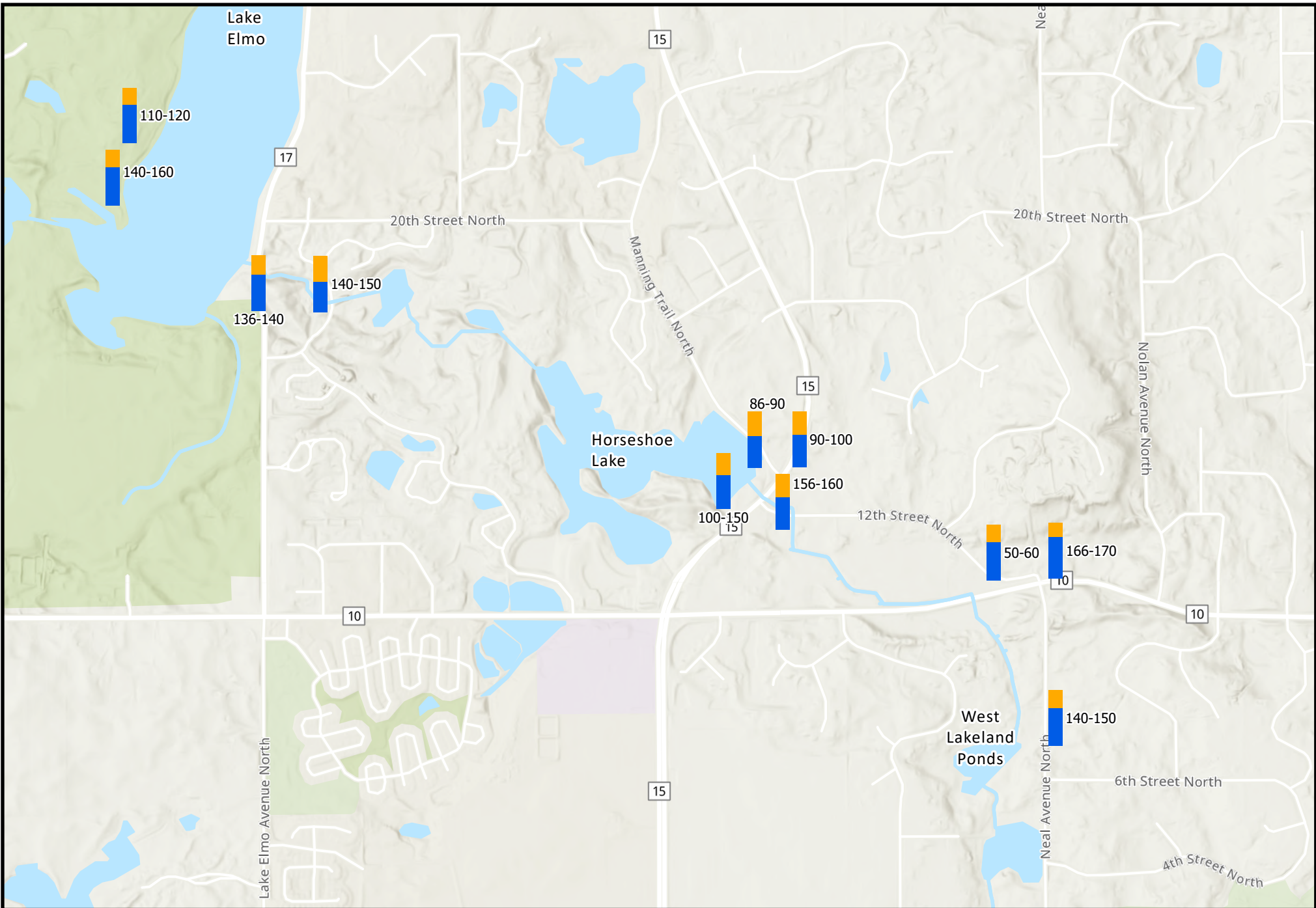
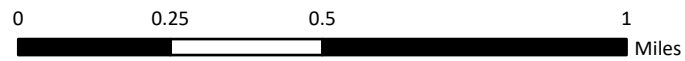


Figure 127: PFOS Branched-Linear Analysis in Prairie du Chien Aquifer (Horseshoe Lake) Project 1007 Feasibility Study



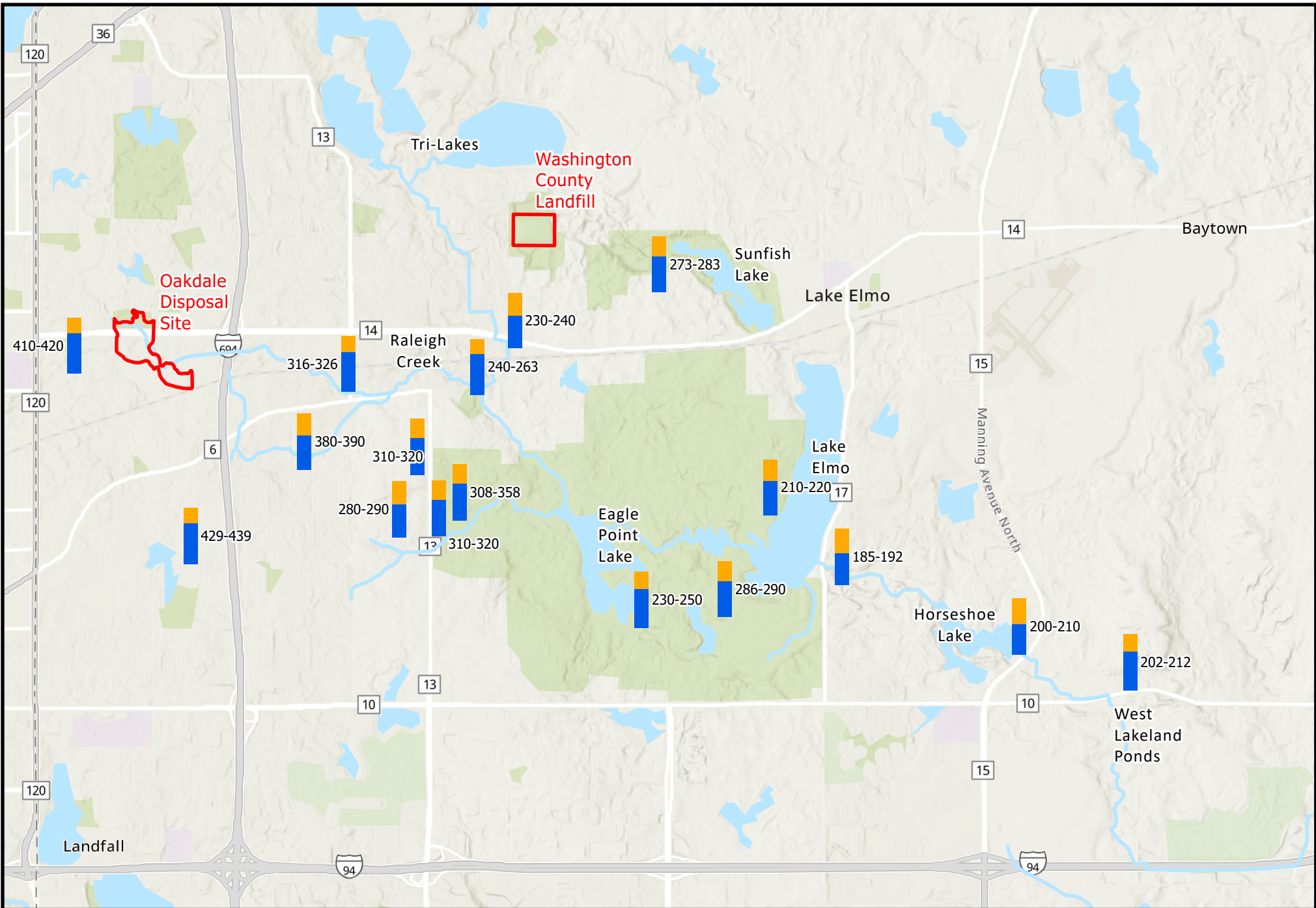
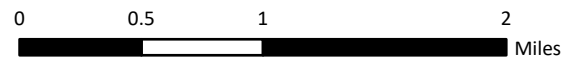
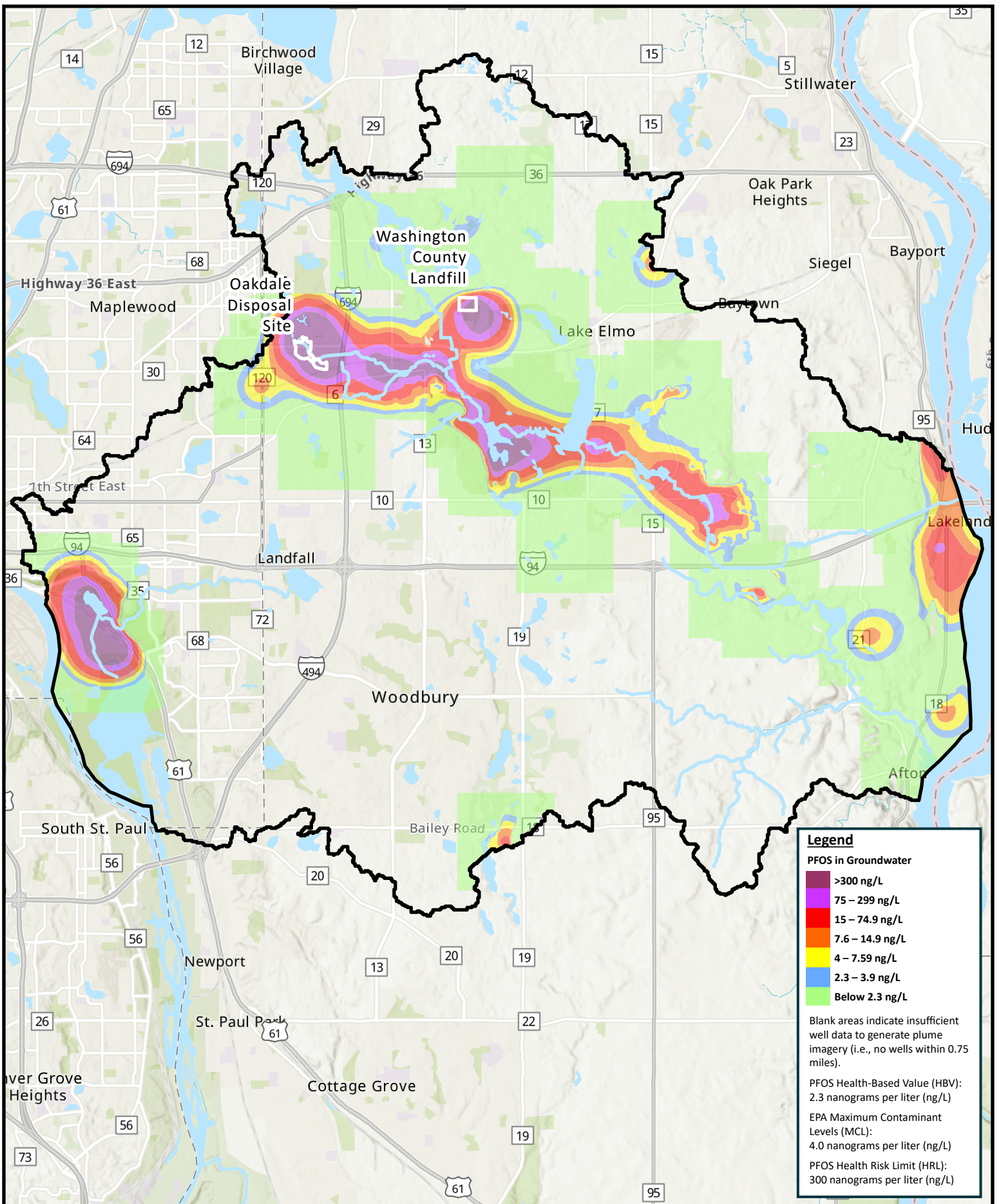
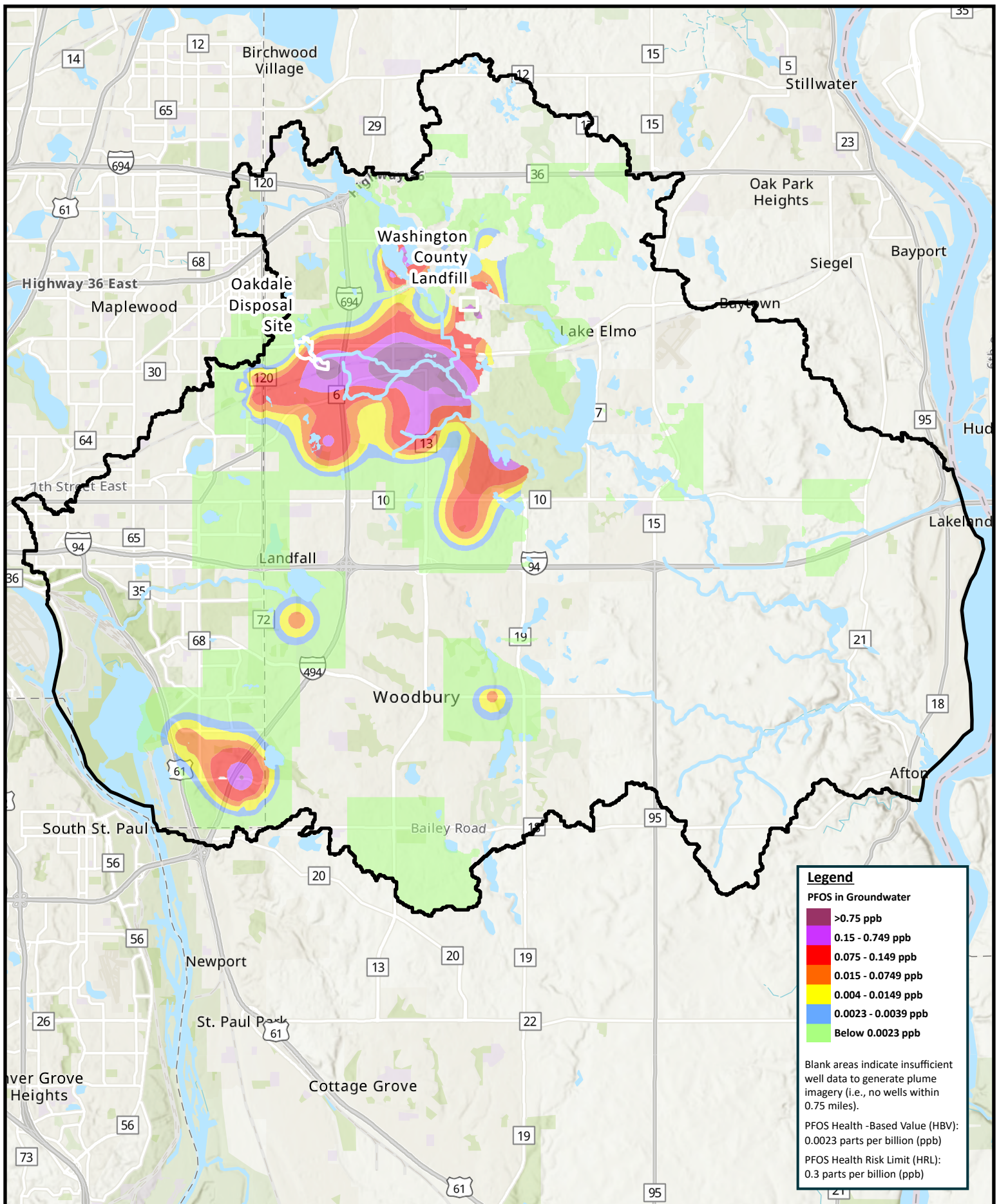


Figure 128: PFOS Branched-Linear Analysis in Jordan Aquifer
Project 1007 Feasibility Study

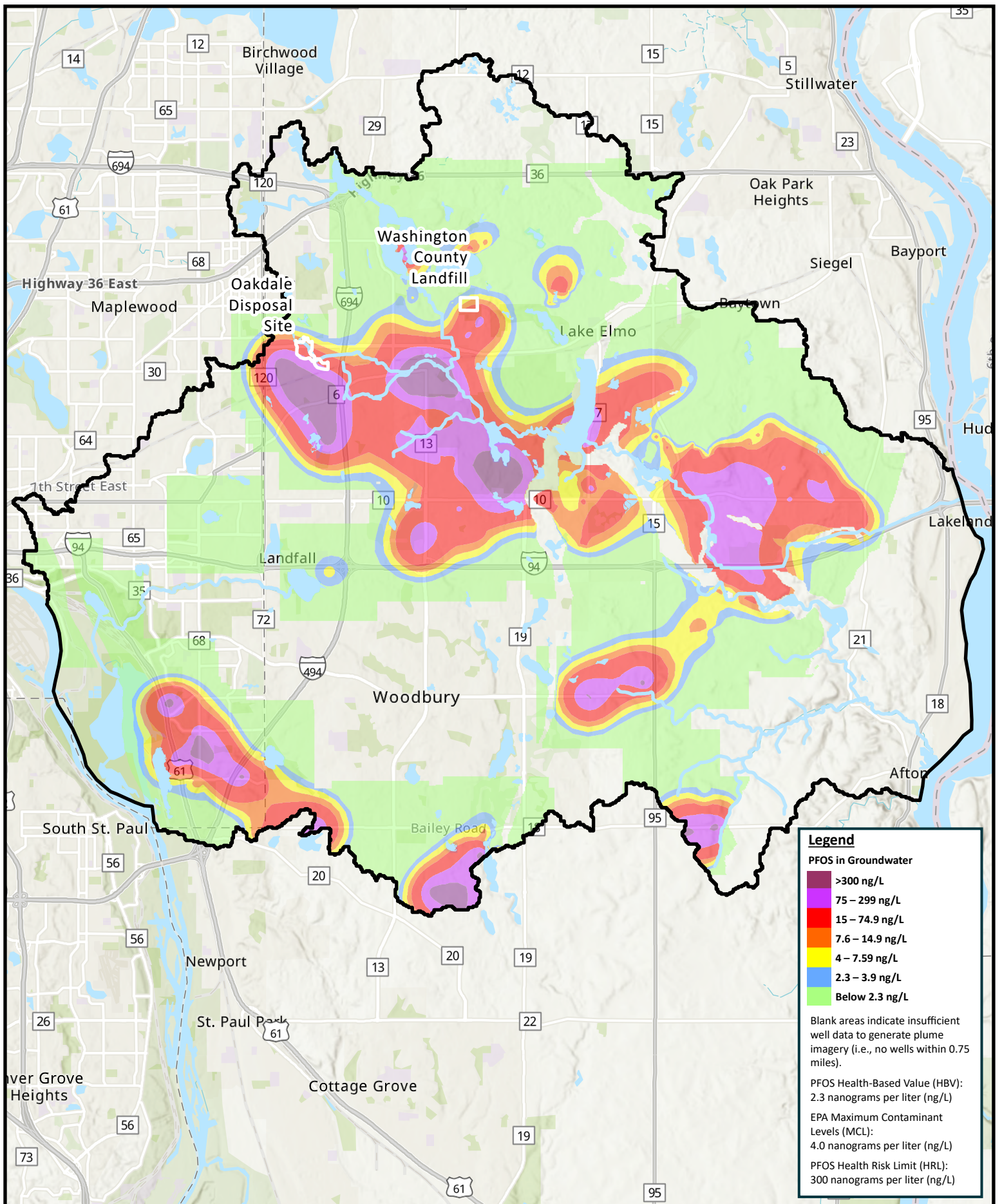




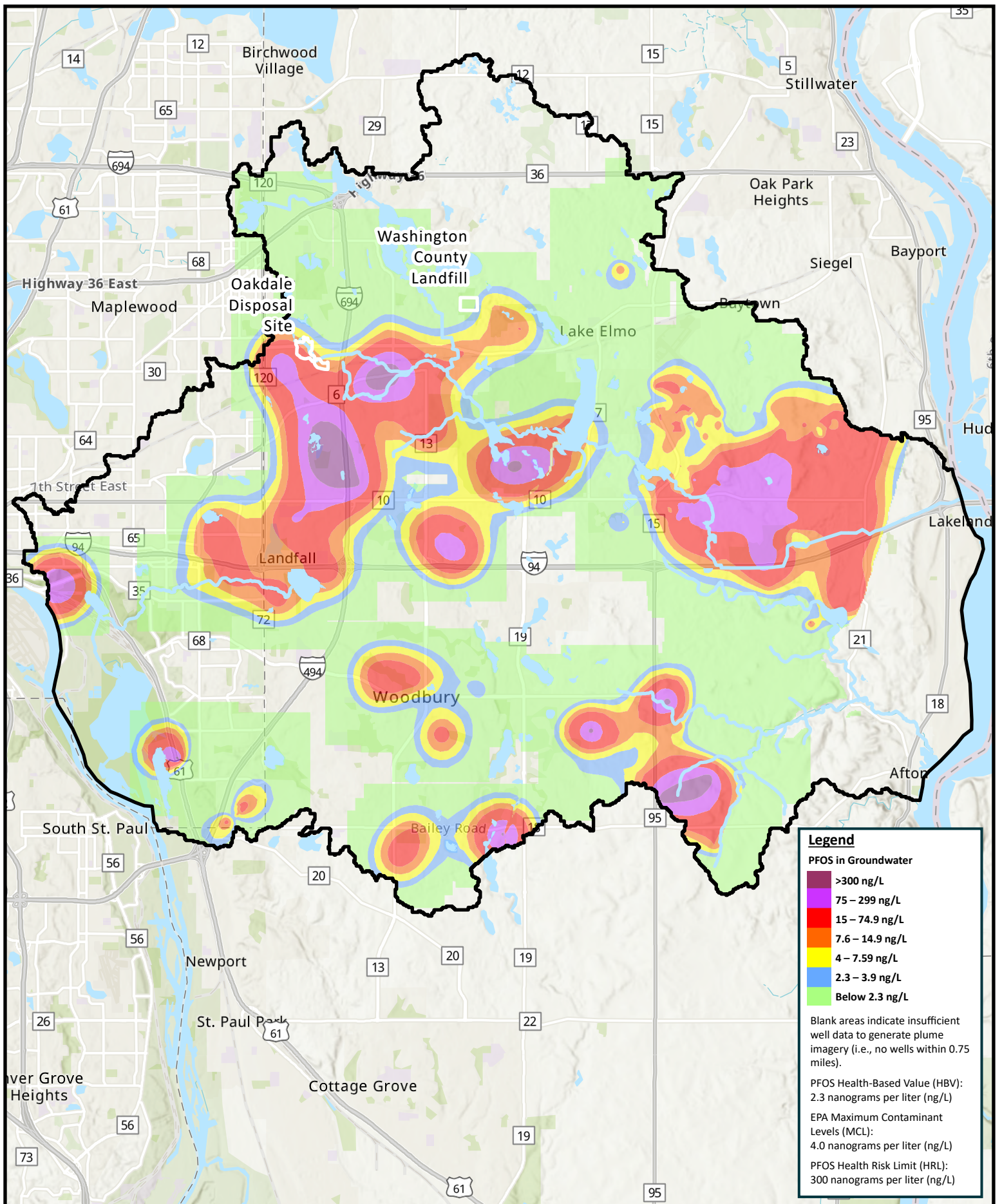
**Figure 129: Quaternary Aquifer
PFOS Plume Map
Project 1007 Feasibility Study**



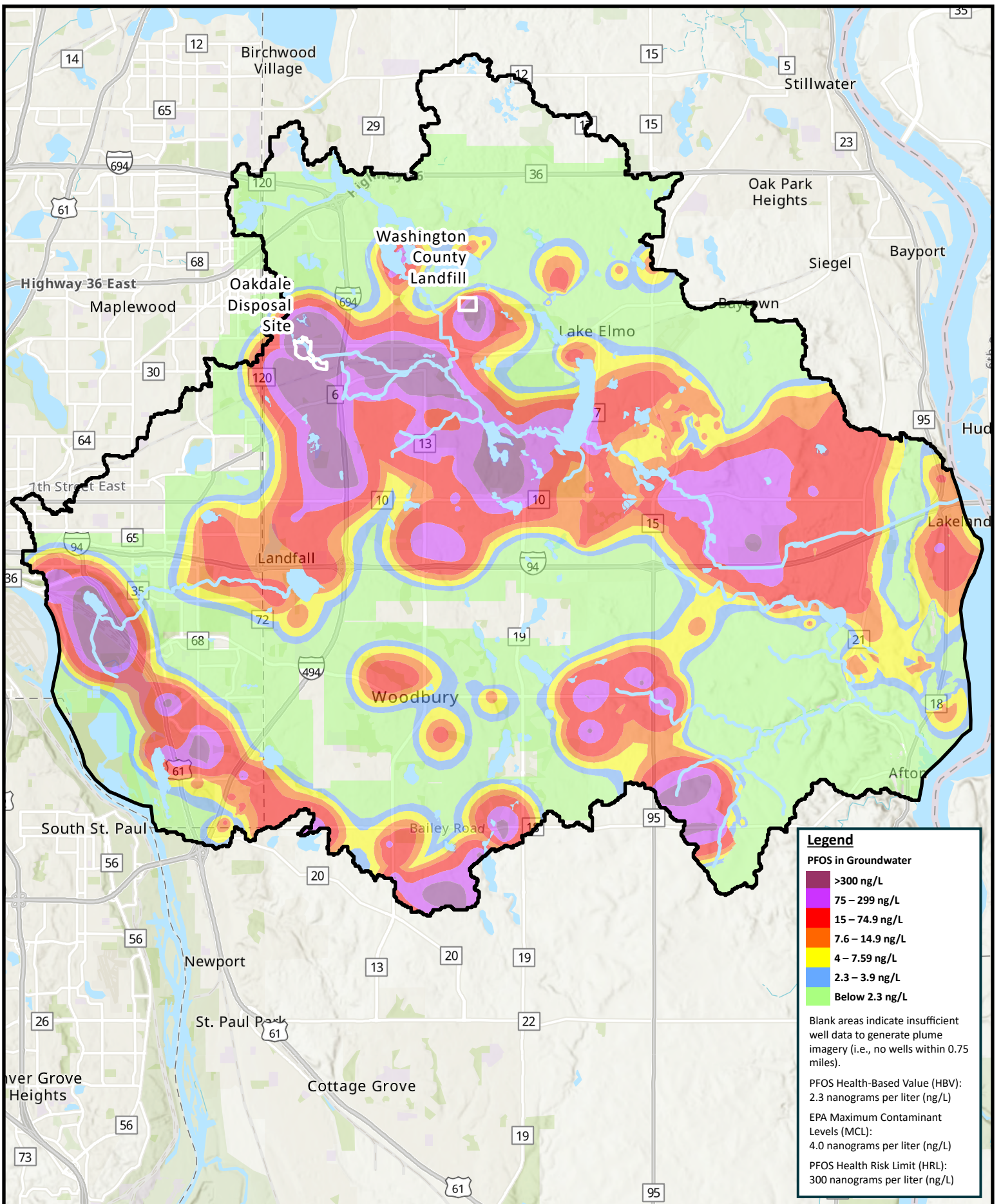
**Figure 130: St. Peter Aquifer
 PFOS Plume Map
 Project 1007 Feasibility Study**



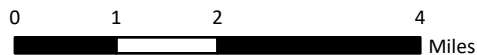
**Figure 131: Prairie du Chien Aquifer
PFOS Plume Map
Project 1007 Feasibility Study**



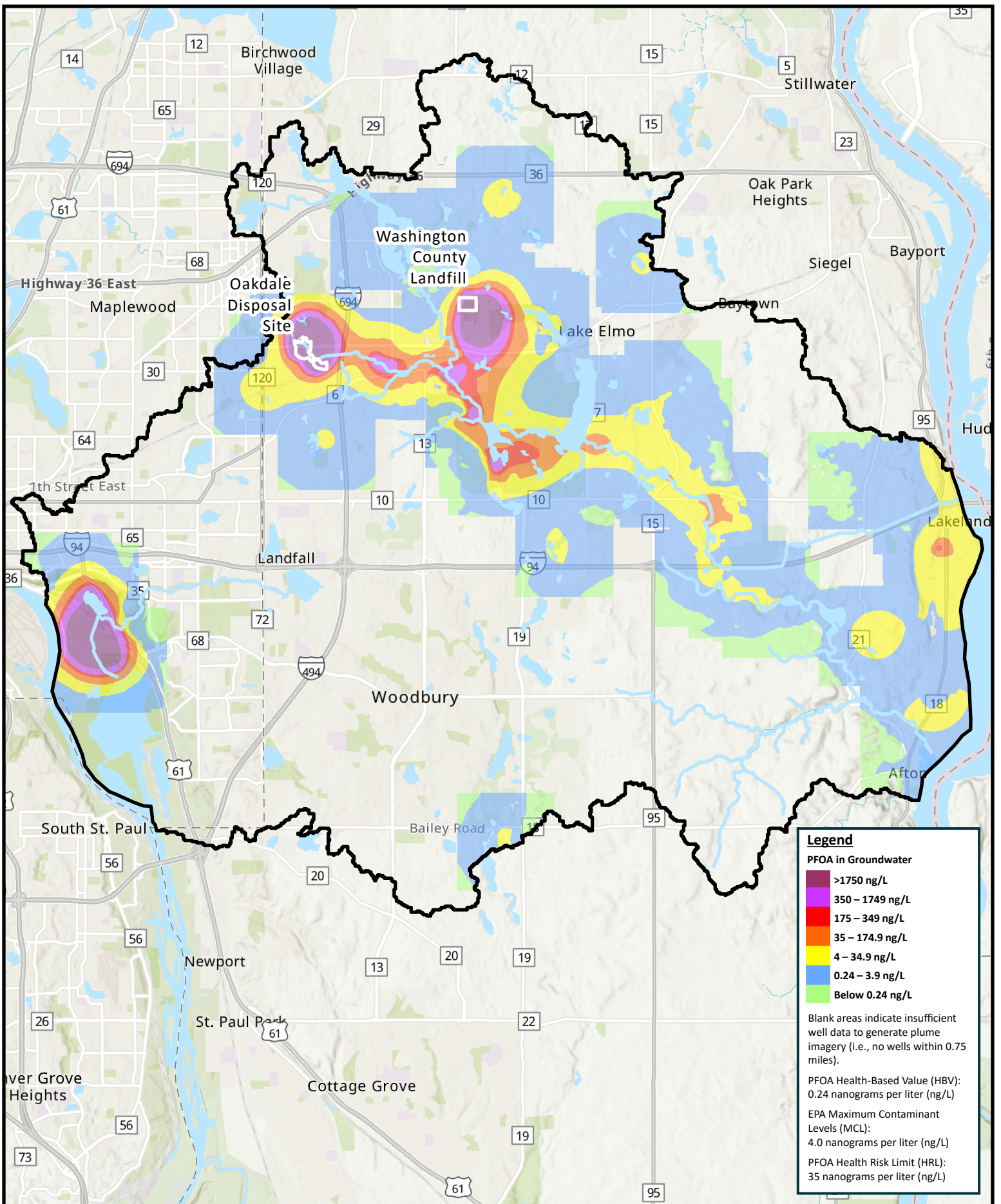
**Figure 132: Jordan Aquifer
PFOS Plume Map
Project 1007 Feasibility Study**



**Figure 133: Quaternary to Jordan Aquifer
PFOS Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report



Legend

PFOA in Groundwater

- >1750 ng/L
- 350 – 1749 ng/L
- 175 – 349 ng/L
- 35 – 174.9 ng/L
- 4 – 34.9 ng/L
- 0.24 – 3.9 ng/L
- Below 0.24 ng/L

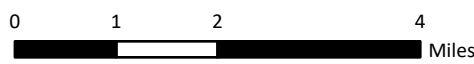
Blank areas indicate insufficient well data to generate plume imagery (i.e., no wells within 0.75 miles).

PFOA Health-Based Value (HBV): 0.24 nanograms per liter (ng/L)

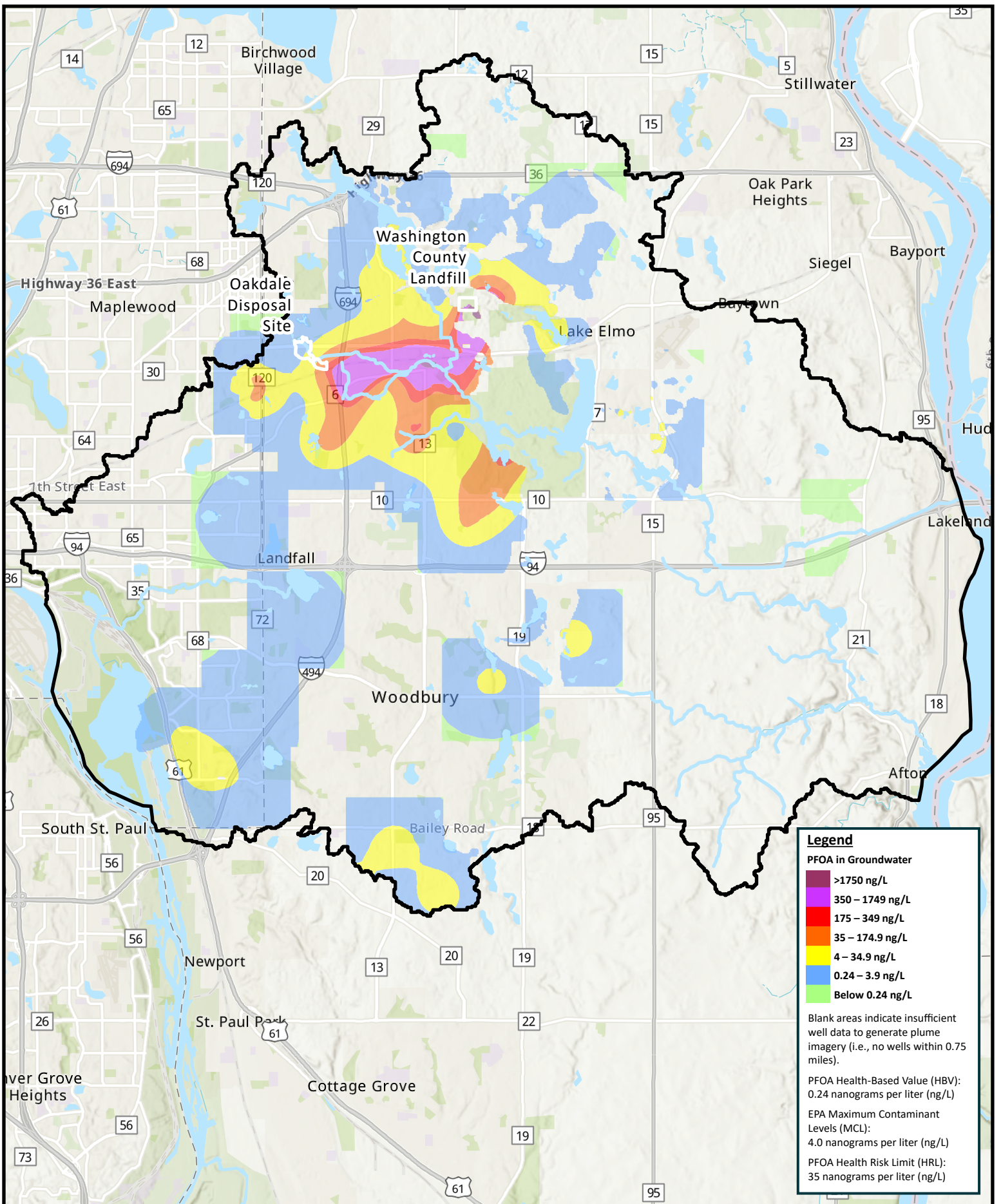
EPA Maximum Contaminant Levels (MCL): 4.0 nanograms per liter (ng/L)

PFOA Health Risk Limit (HRL): 35 nanograms per liter (ng/L)

Figure 134: Quaternary Aquifer PFOA Plume Map
 Project 1007 Feasibility Study



Note: This is a draft version of the plume map and is not considered final for this report



Legend

PFOA in Groundwater

- >1750 ng/L
- 350 – 1749 ng/L
- 175 – 349 ng/L
- 35 – 174.9 ng/L
- 4 – 34.9 ng/L
- 0.24 – 3.9 ng/L
- Below 0.24 ng/L

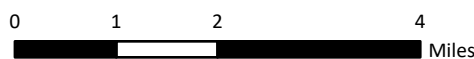
Blank areas indicate insufficient well data to generate plume imagery (i.e., no wells within 0.75 miles).

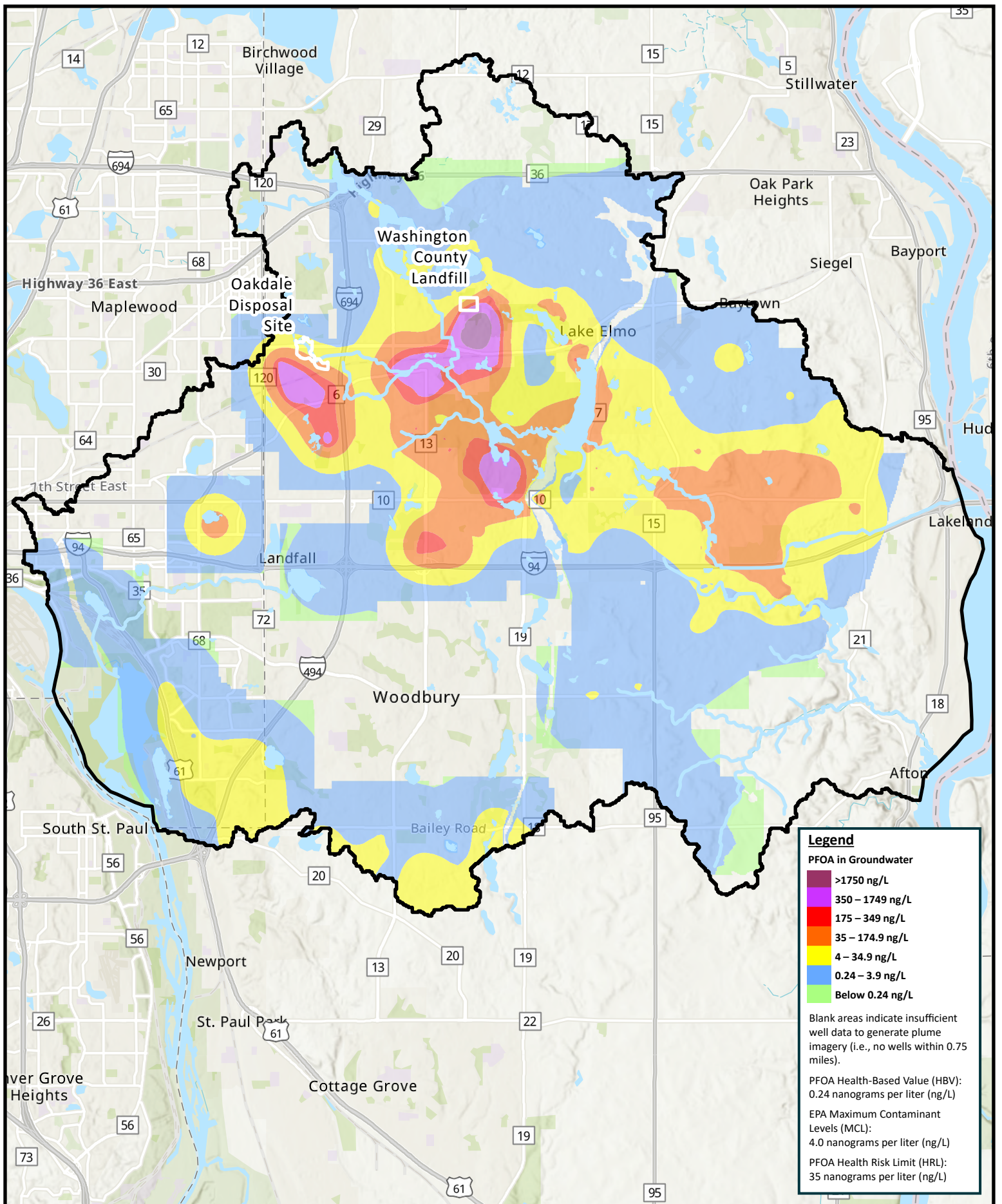
PFOA Health-Based Value (HBV): 0.24 nanograms per liter (ng/L)

EPA Maximum Contaminant Levels (MCL): 4.0 nanograms per liter (ng/L)

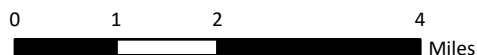
PFOA Health Risk Limit (HRL): 35 nanograms per liter (ng/L)

Figure 135: St. Peter Aquifer PFOA Plume Map
Project 1007 Feasibility Study

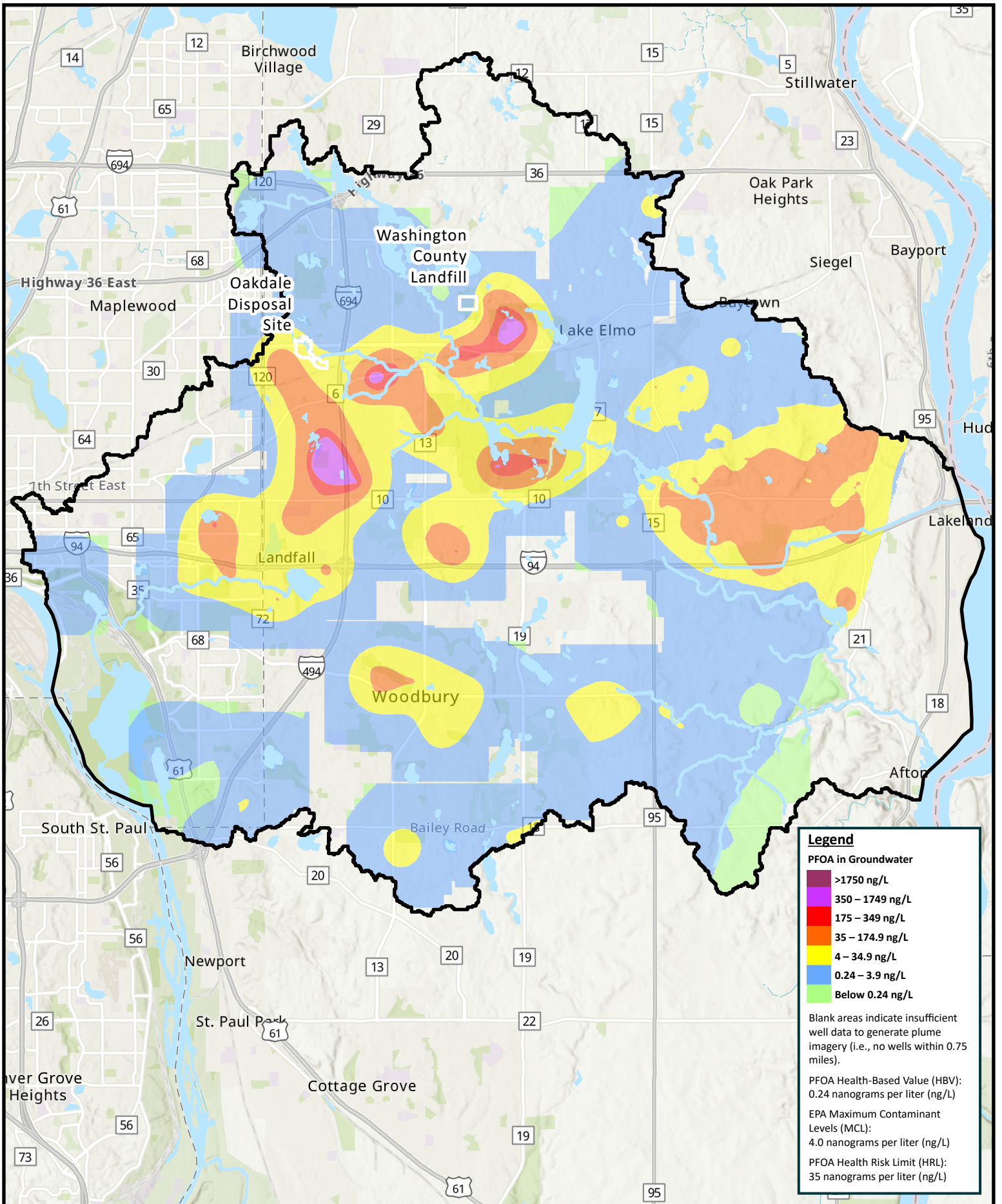




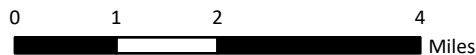
**Figure 136: Prairie du Chien Aquifer
PFOA Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report



**Figure 137: Jordan Aquifer
PFOA Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report

Legend

PFOA in Groundwater

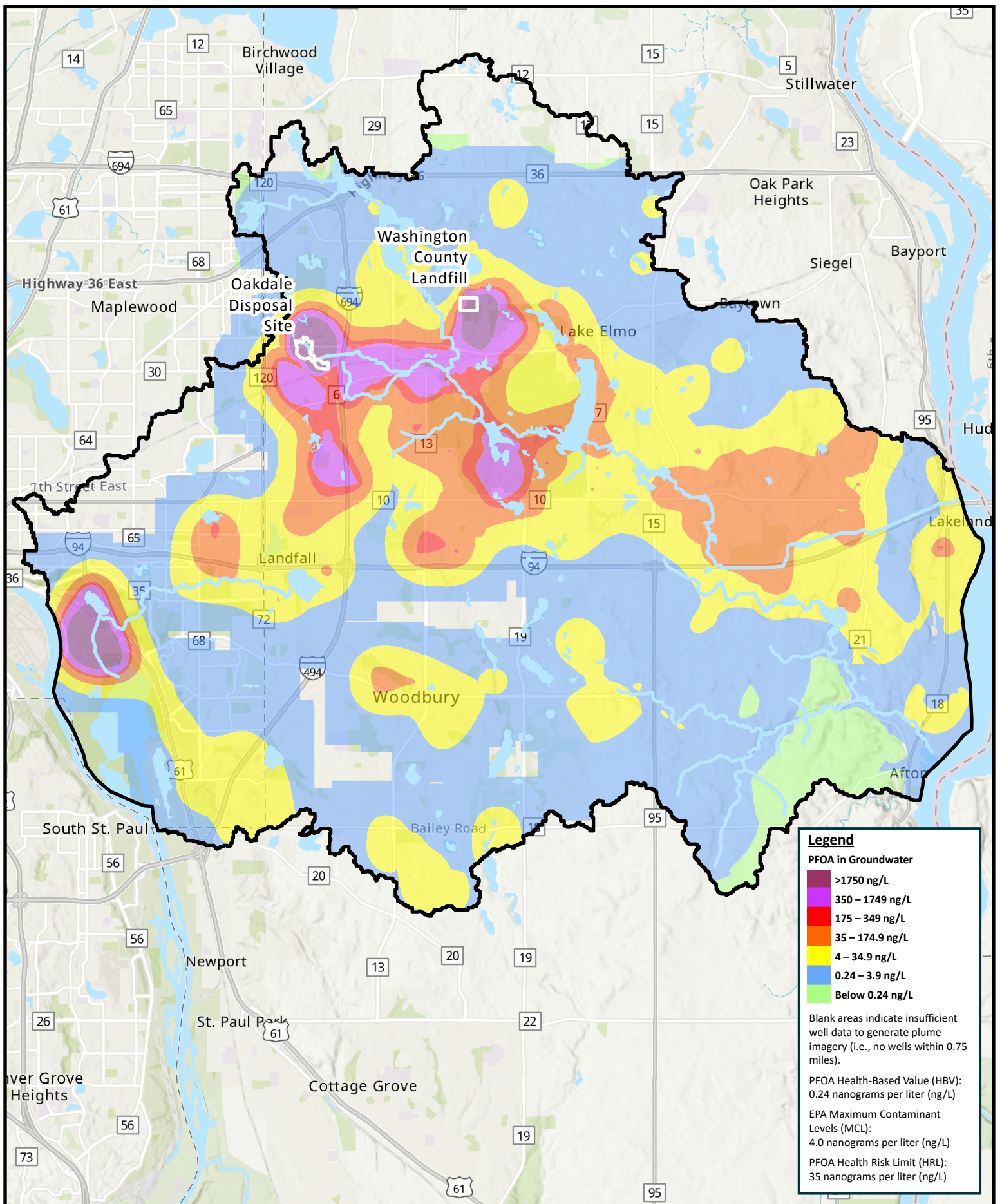
- >1750 ng/L
- 350 – 1749 ng/L
- 175 – 349 ng/L
- 35 – 174.9 ng/L
- 4 – 34.9 ng/L
- 0.24 – 3.9 ng/L
- Below 0.24 ng/L

Blank areas indicate insufficient well data to generate plume imagery (i.e., no wells within 0.75 miles).

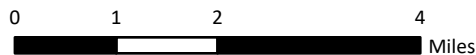
PFOA Health-Based Value (HBV): 0.24 nanograms per liter (ng/L)

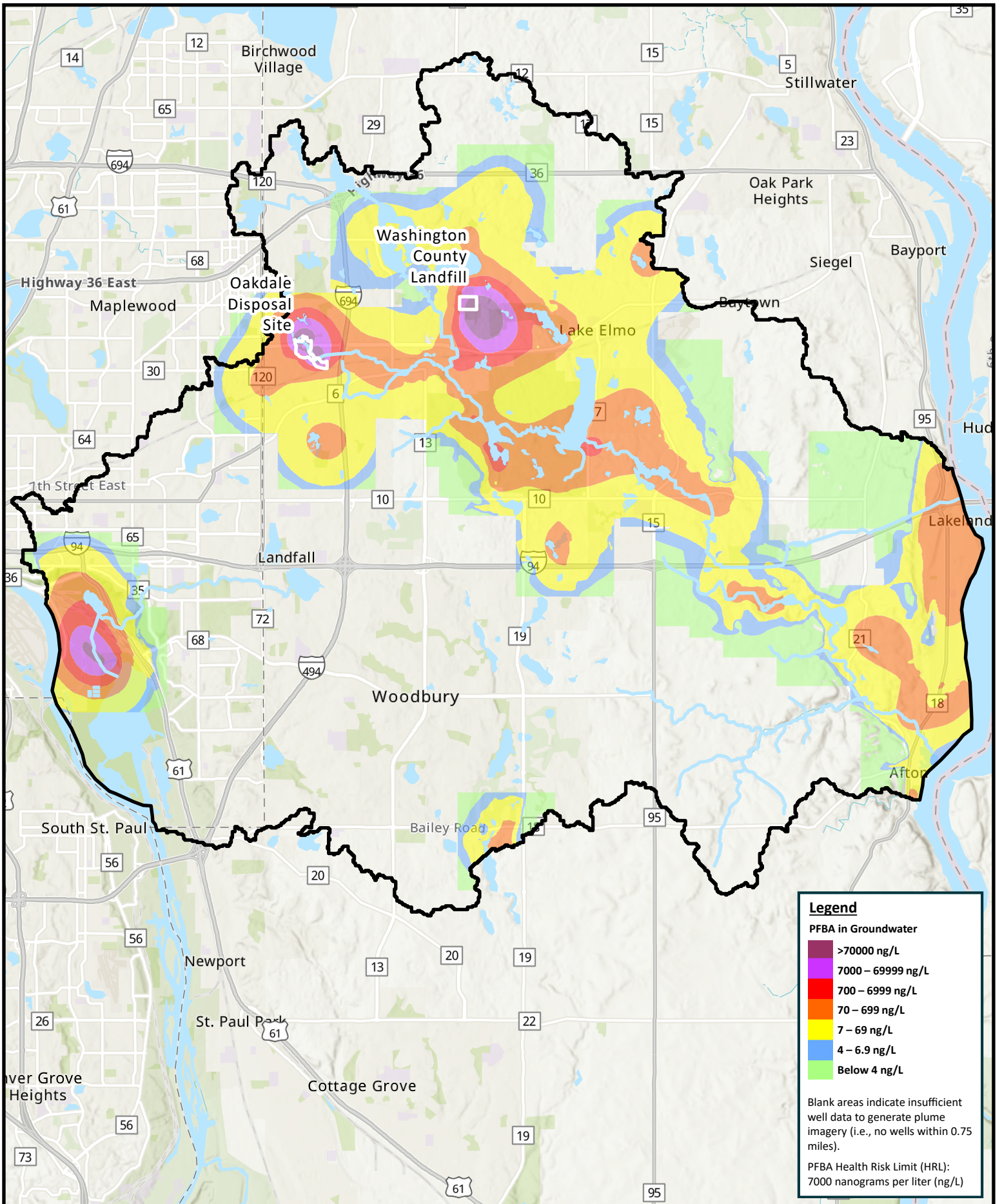
EPA Maximum Contaminant Levels (MCL): 4.0 nanograms per liter (ng/L)

PFOA Health Risk Limit (HRL): 35 nanograms per liter (ng/L)

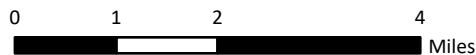


**Figure 138: Quaternary to Jordan Aquifer
PFOA Plume Map
Project 1007 Feasibility Study**



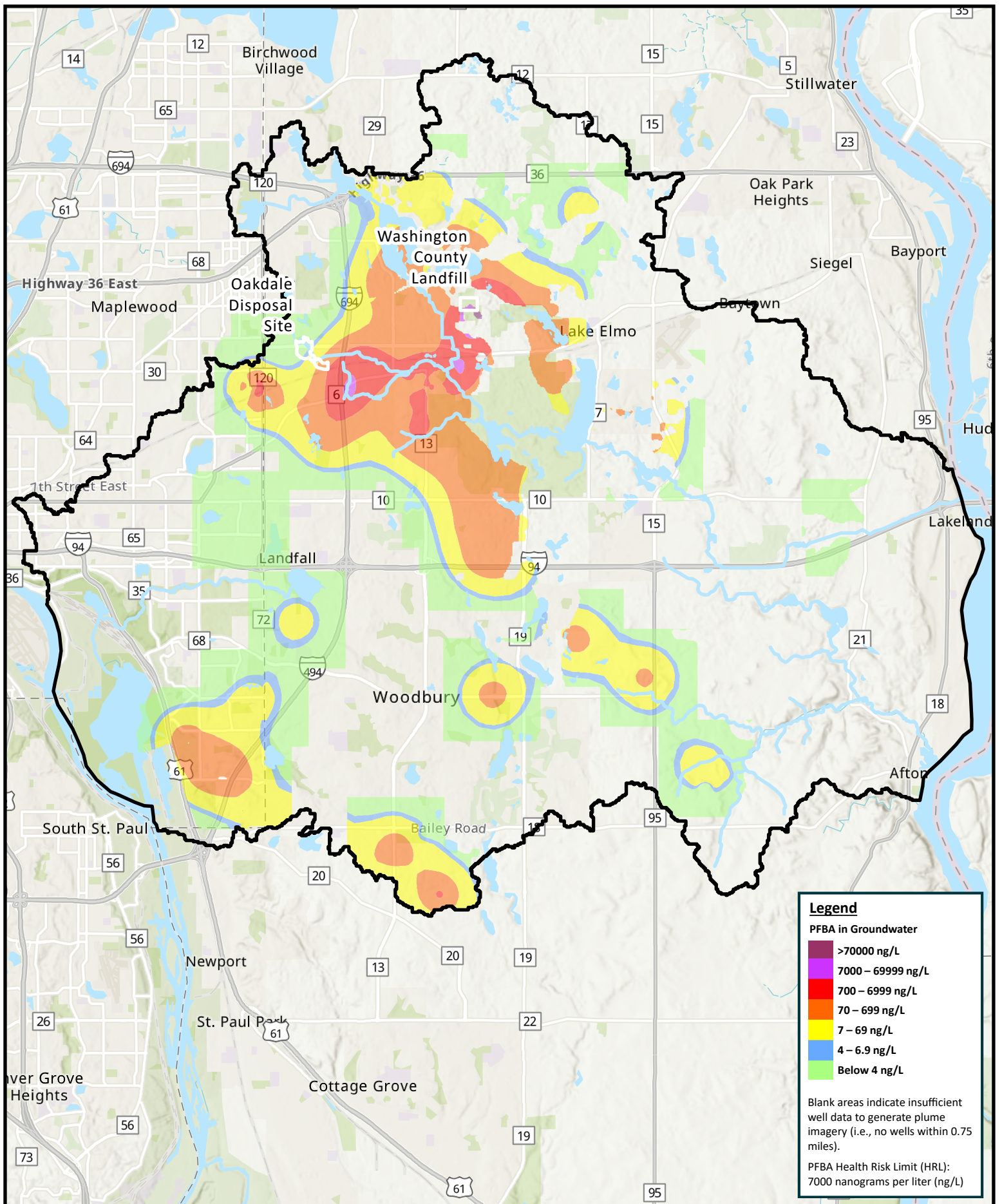


**Figure 139: Quaternary Aquifer
PFBA Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report

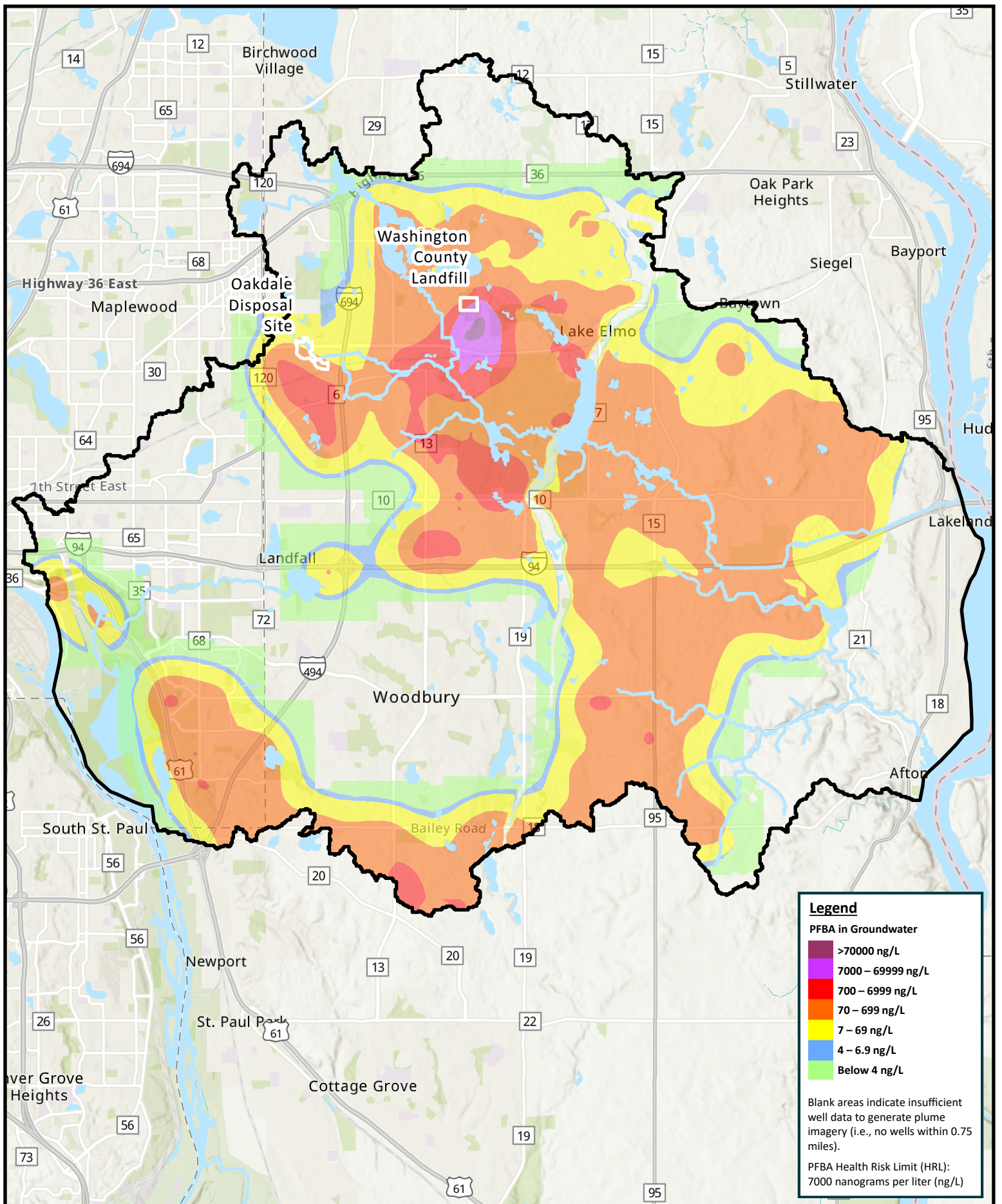




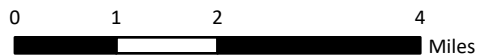
**Figure 140: St. Peter Aquifer
PFBA Plume Map
Project 1007 Feasibility Study**

0 1 2 4
Miles

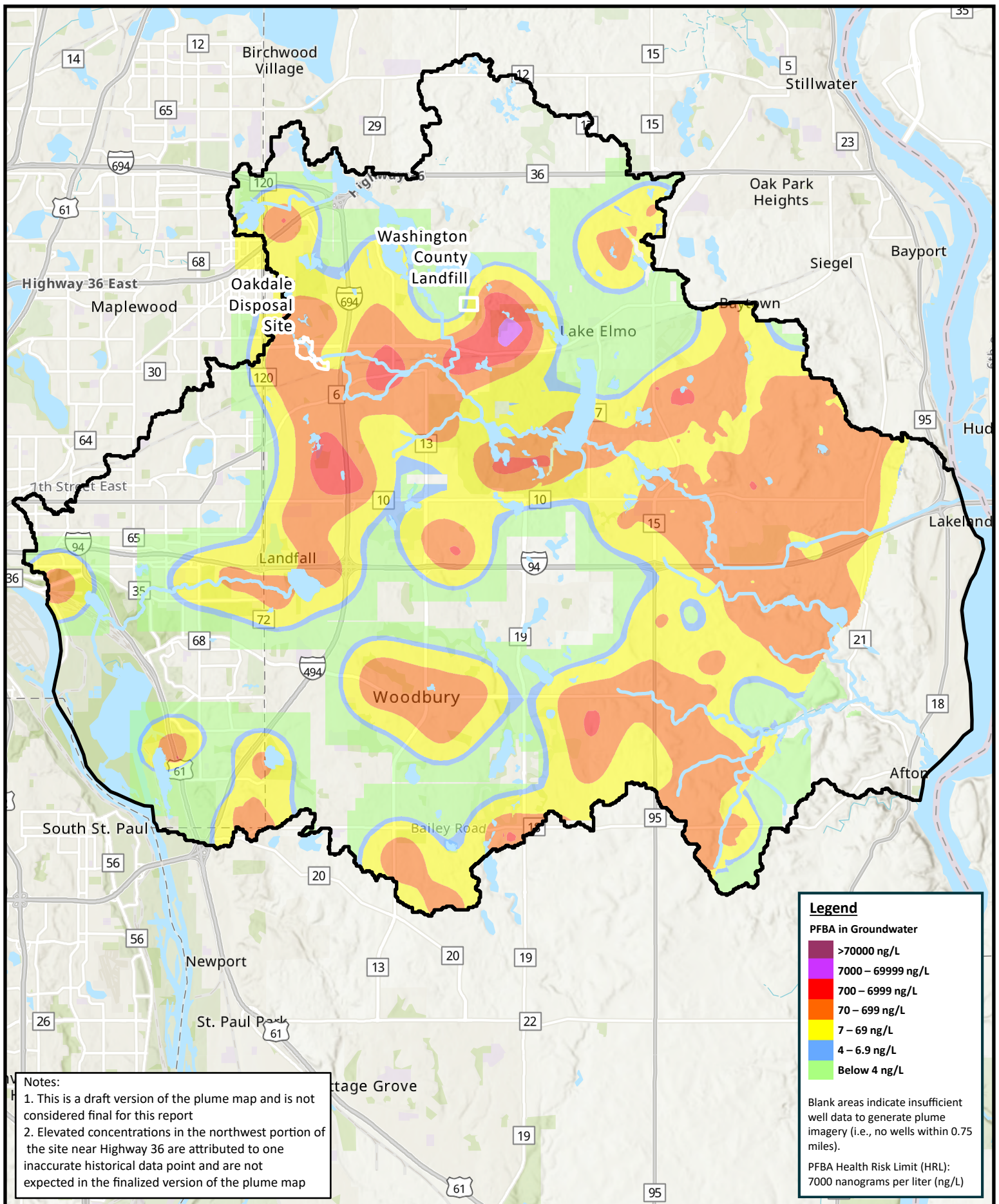
Note: This is a draft version of the plume map and is not considered final for this report



**Figure 141: Prairie du Chien Aquifer
PFBA Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report



Notes:
 1. This is a draft version of the plume map and is not considered final for this report
 2. Elevated concentrations in the northwest portion of the site near Highway 36 are attributed to one inaccurate historical data point and are not expected in the finalized version of the plume map

Legend

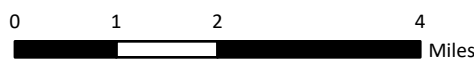
PFBA in Groundwater

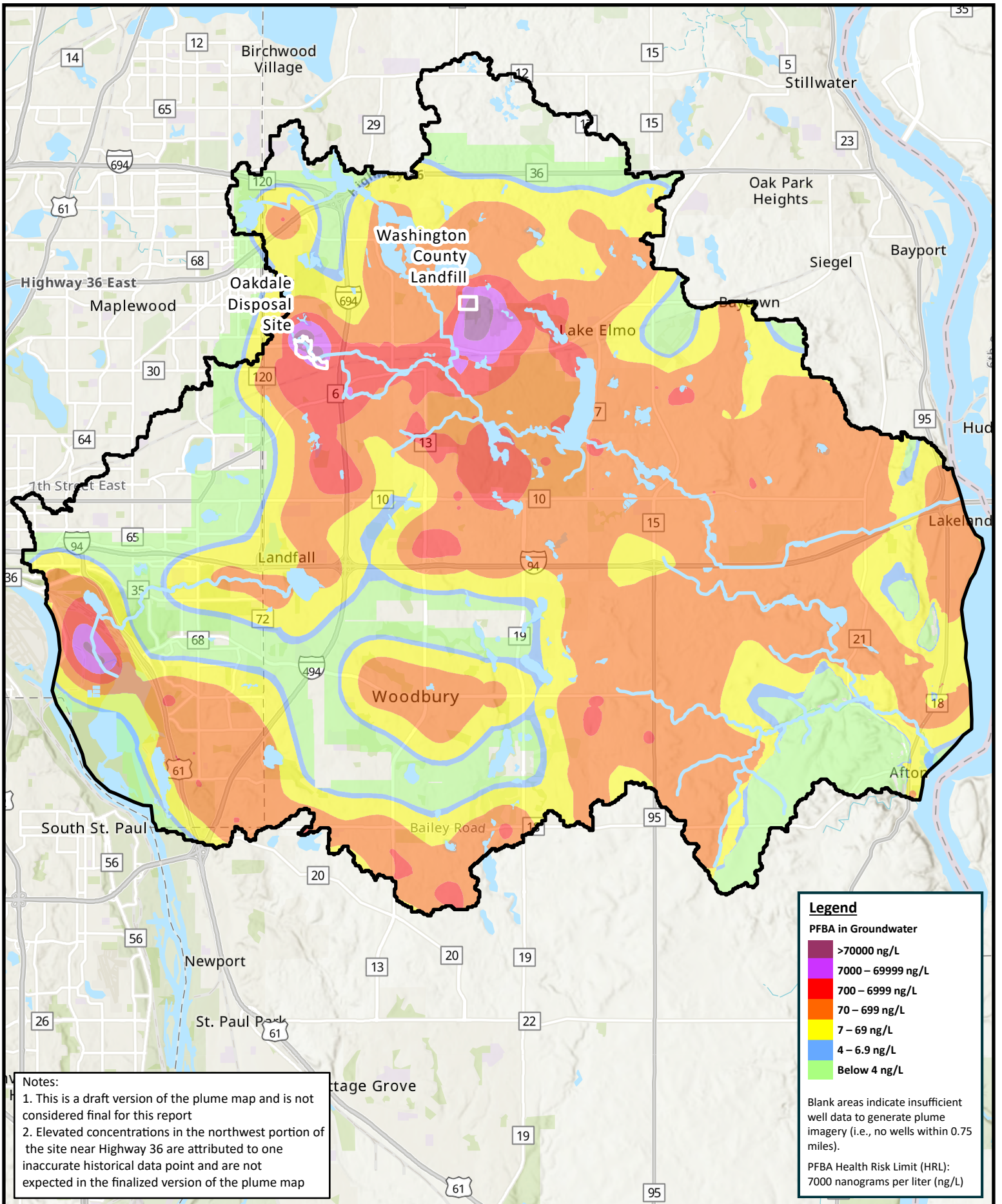
- >70000 ng/L
- 7000 – 69999 ng/L
- 700 – 6999 ng/L
- 70 – 699 ng/L
- 7 – 69 ng/L
- 4 – 6.9 ng/L
- Below 4 ng/L

Blank areas indicate insufficient well data to generate plume imagery (i.e., no wells within 0.75 miles).

PFBA Health Risk Limit (HRL):
 7000 nanograms per liter (ng/L)

**Figure 142: Jordan Aquifer
 PFBA Plume Map
 Project 1007 Feasibility Study**





Notes:
 1. This is a draft version of the plume map and is not considered final for this report
 2. Elevated concentrations in the northwest portion of the site near Highway 36 are attributed to one inaccurate historical data point and are not expected in the finalized version of the plume map

Legend

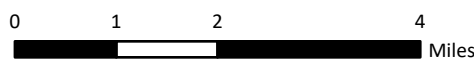
PFBA in Groundwater

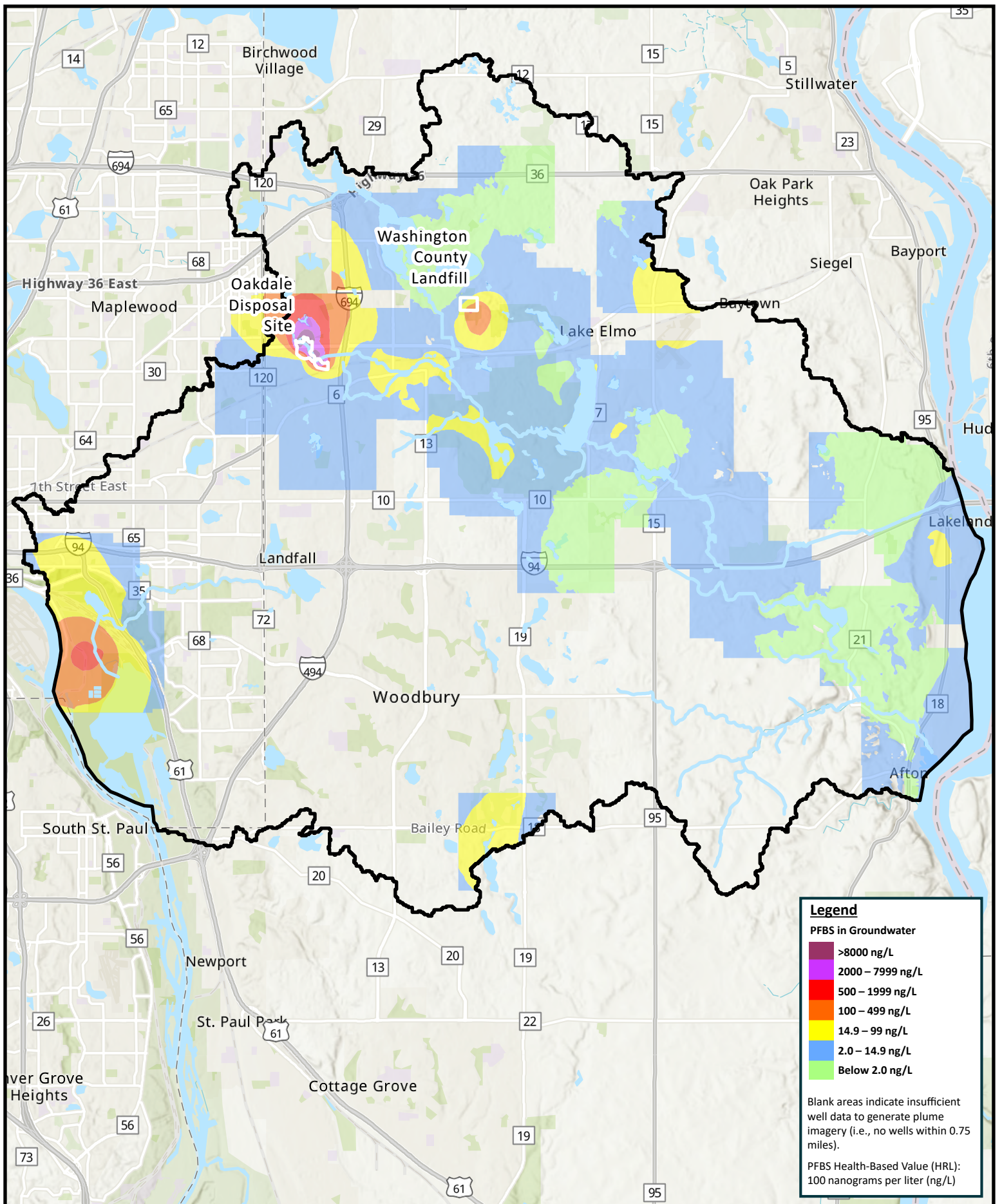
- >70000 ng/L
- 7000 – 69999 ng/L
- 700 – 6999 ng/L
- 70 – 699 ng/L
- 7 – 69 ng/L
- 4 – 6.9 ng/L
- Below 4 ng/L

Blank areas indicate insufficient well data to generate plume imagery (i.e., no wells within 0.75 miles).

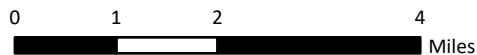
PFBA Health Risk Limit (HRL):
 7000 nanograms per liter (ng/L)

Figure 143: Quaternary to Jordan Aquifer PFBA Plume Map
 Project 1007 Feasibility Study

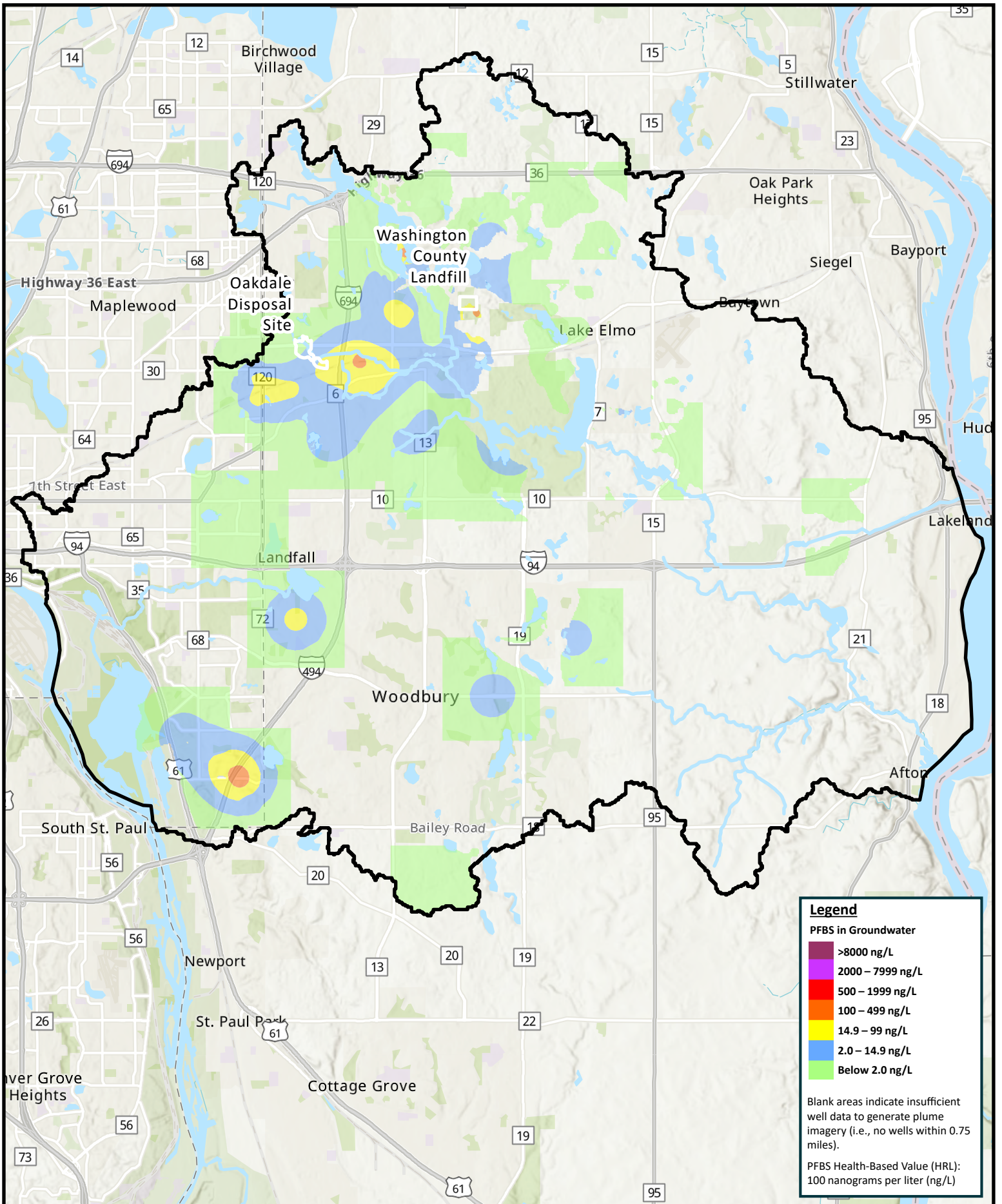




**Figure 144: Quaternary Aquifer
PFBS Plume Map
Project 1007 Feasibility Study**



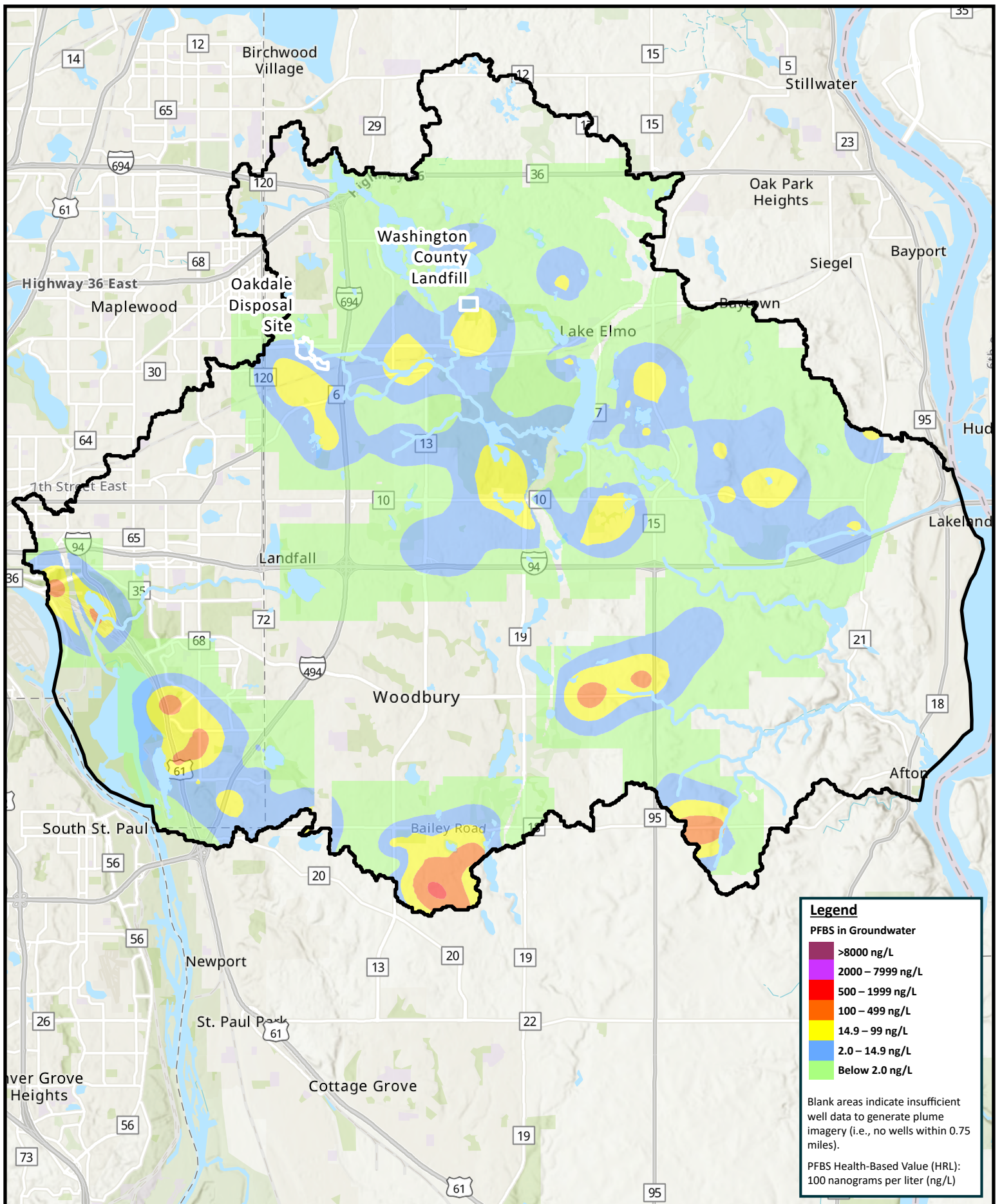
Note: This is a draft version of the plume map and is not considered final for this report



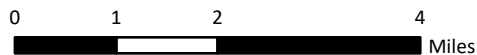
**Figure 145: St. Peter Aquifer
PFBS Plume Map
Project 1007 Feasibility Study**

0 1 2 4
Miles

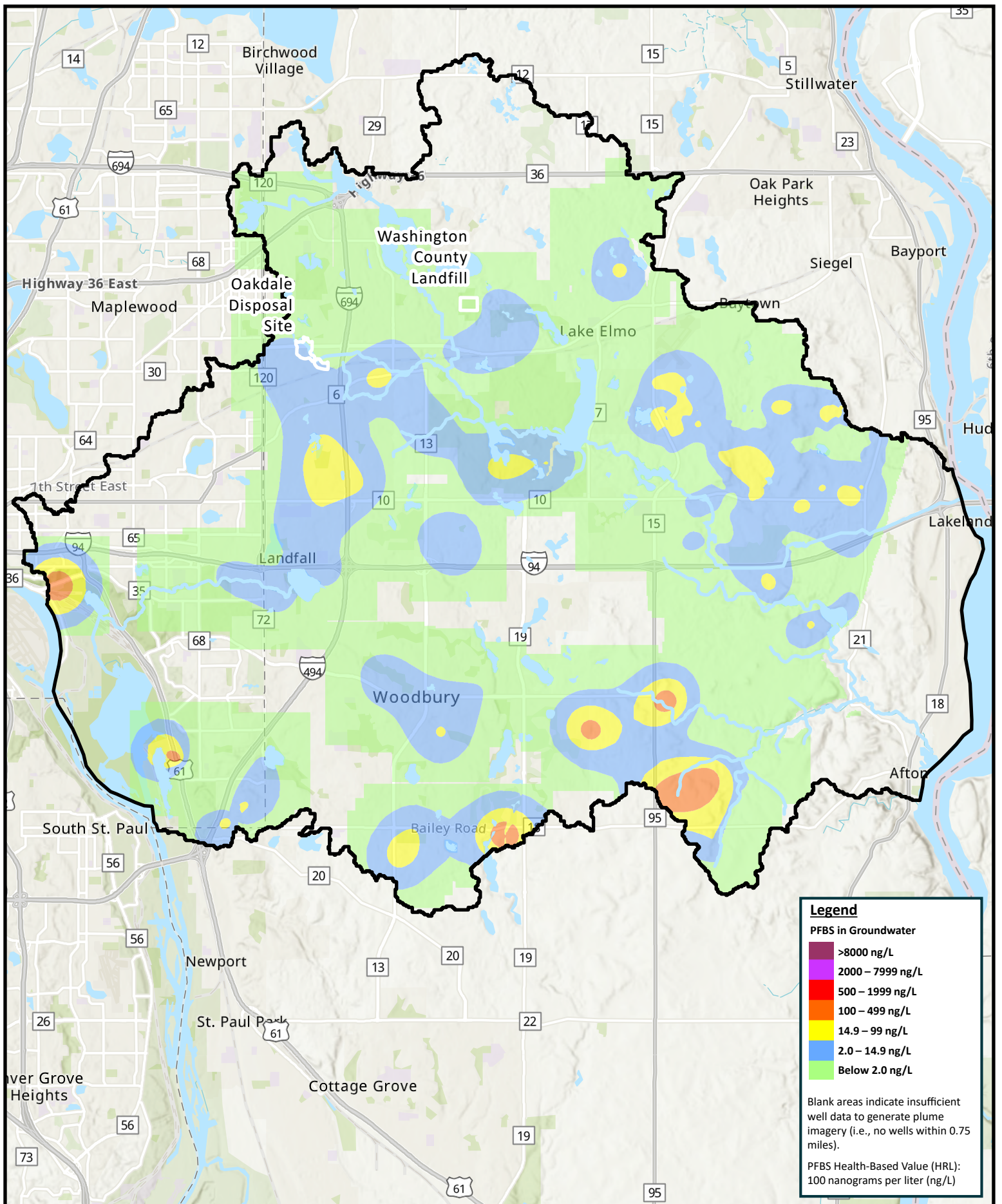
Note: This is a draft version of the plume map and is not considered final for this report



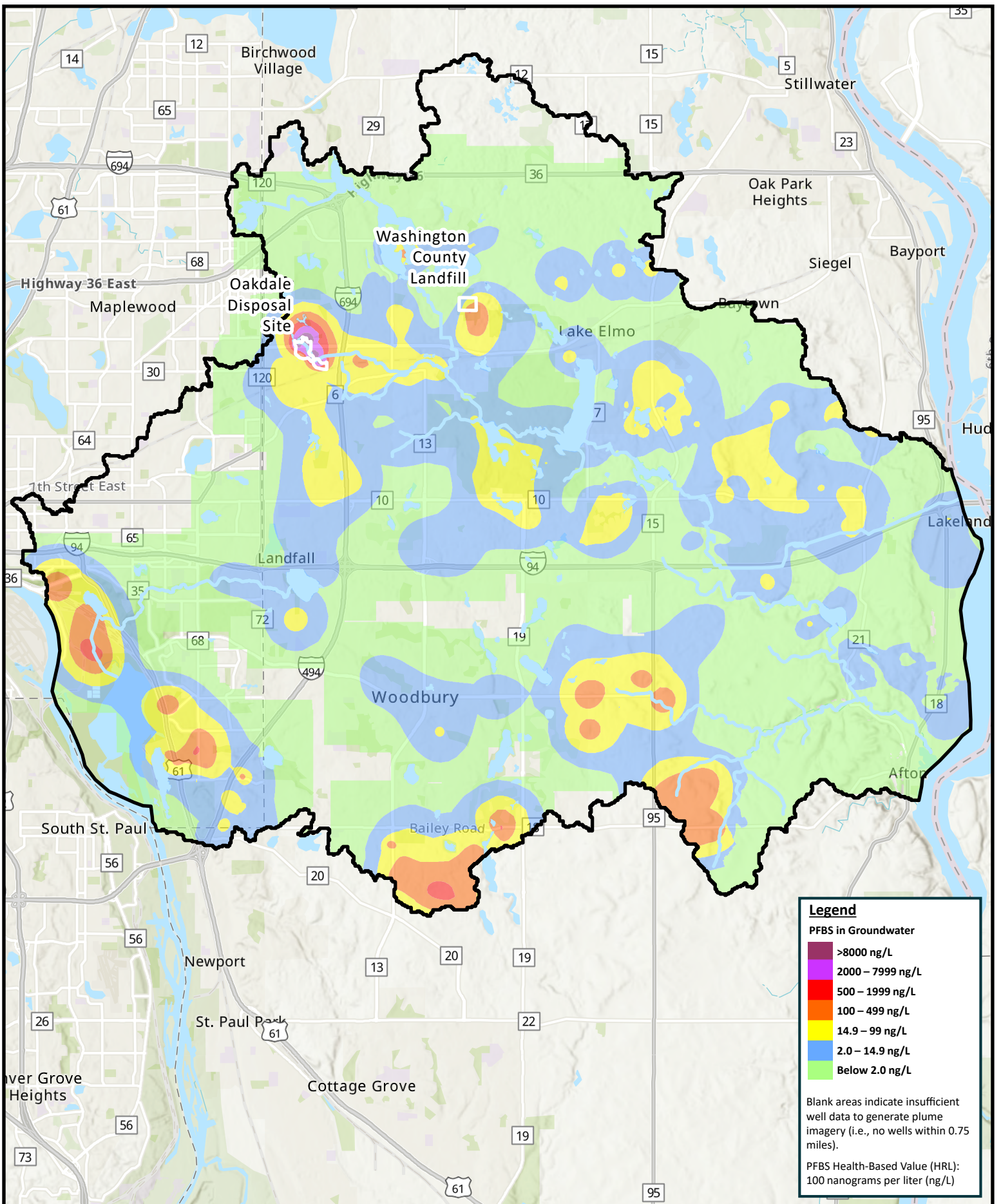
**Figure 146: Prairie du Chien Aquifer
PFBS Plume Map
Project 1007 Feasibility Study**



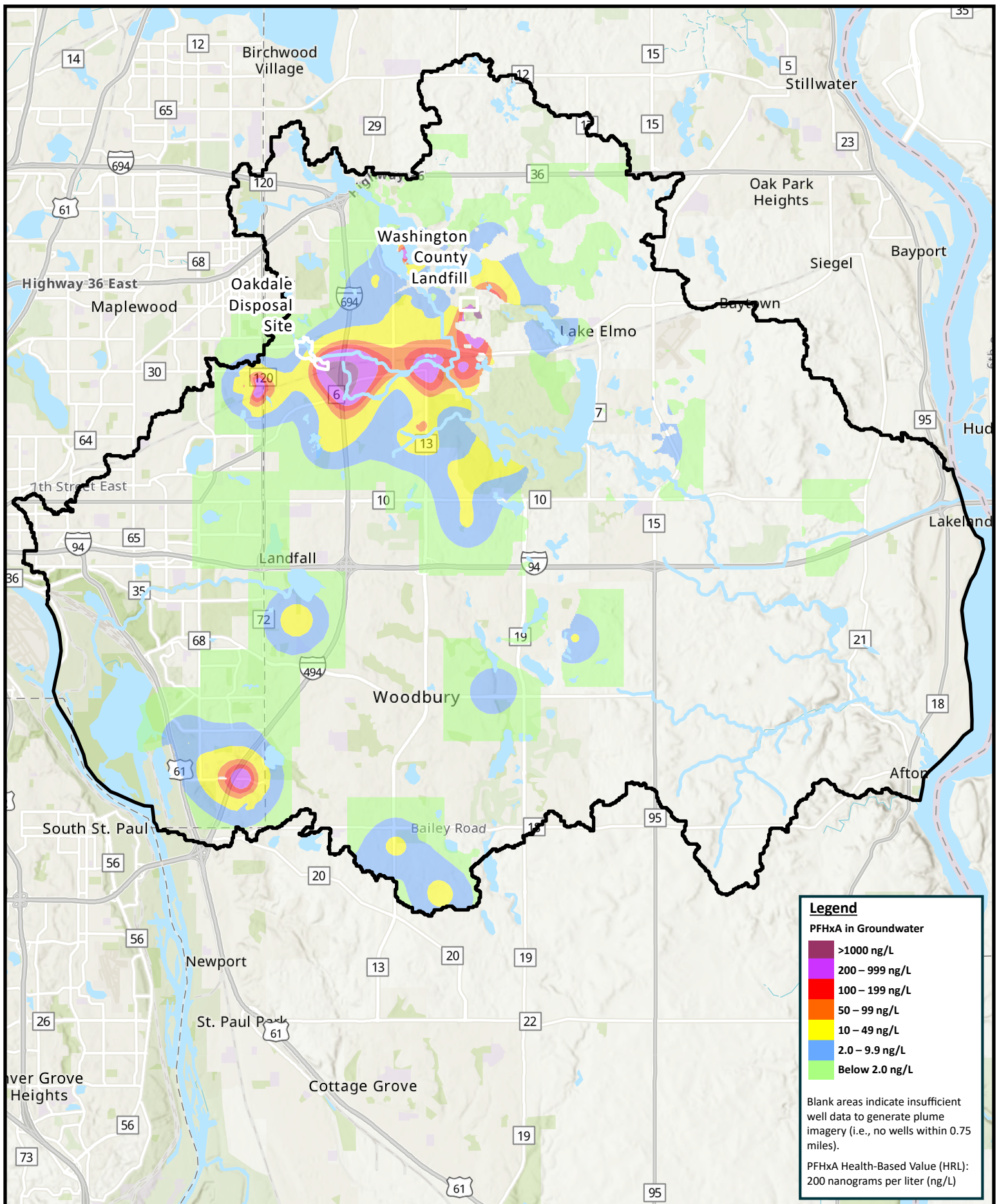
Note: This is a draft version of the plume map and is not considered final for this report



**Figure 147: Jordan Aquifer
PFBS Plume Map
Project 1007 Feasibility Study**



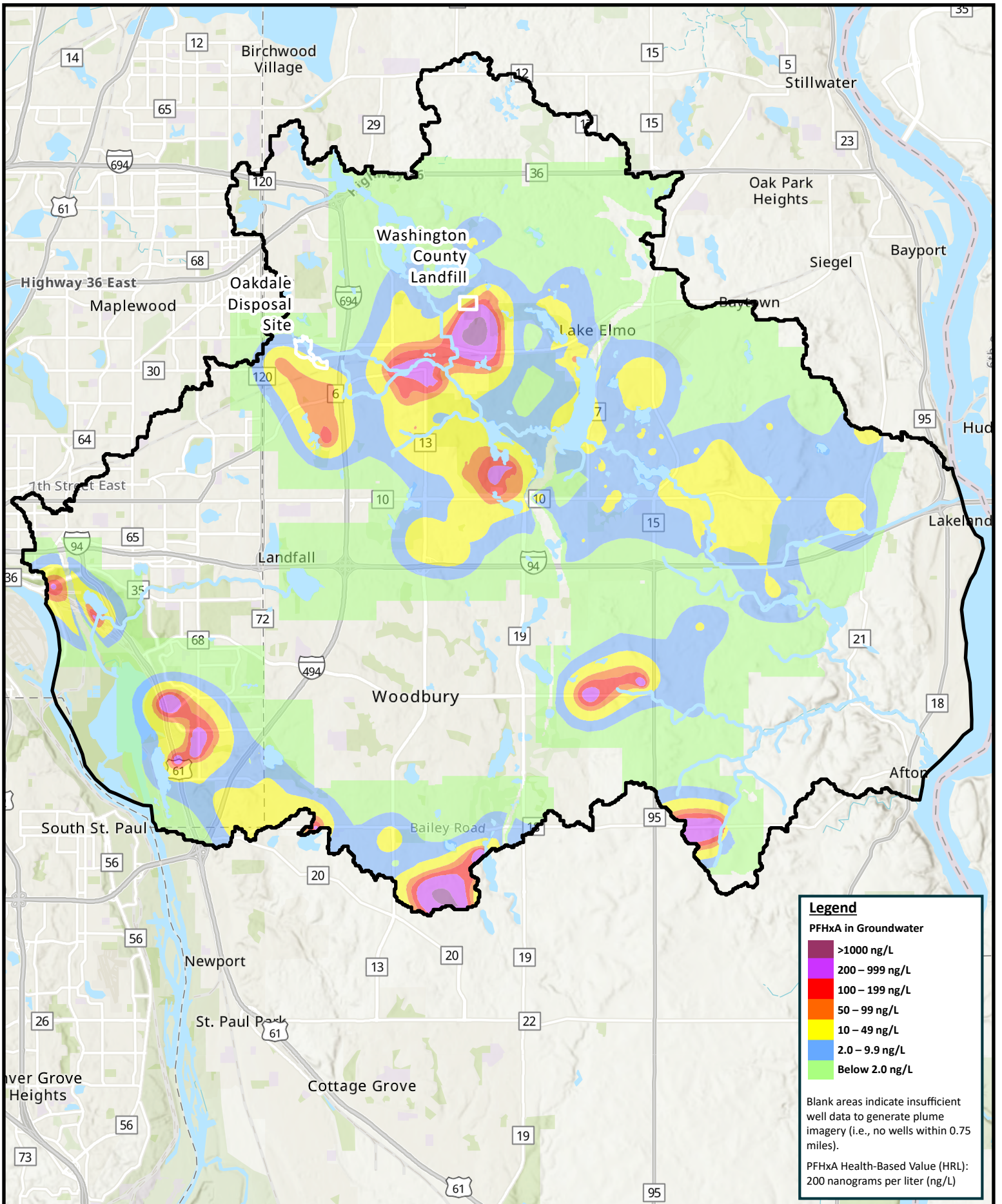
**Figure 148: Quaternary to Jordan Aquifer
PFBS Plume Map
Project 1007 Feasibility Study**



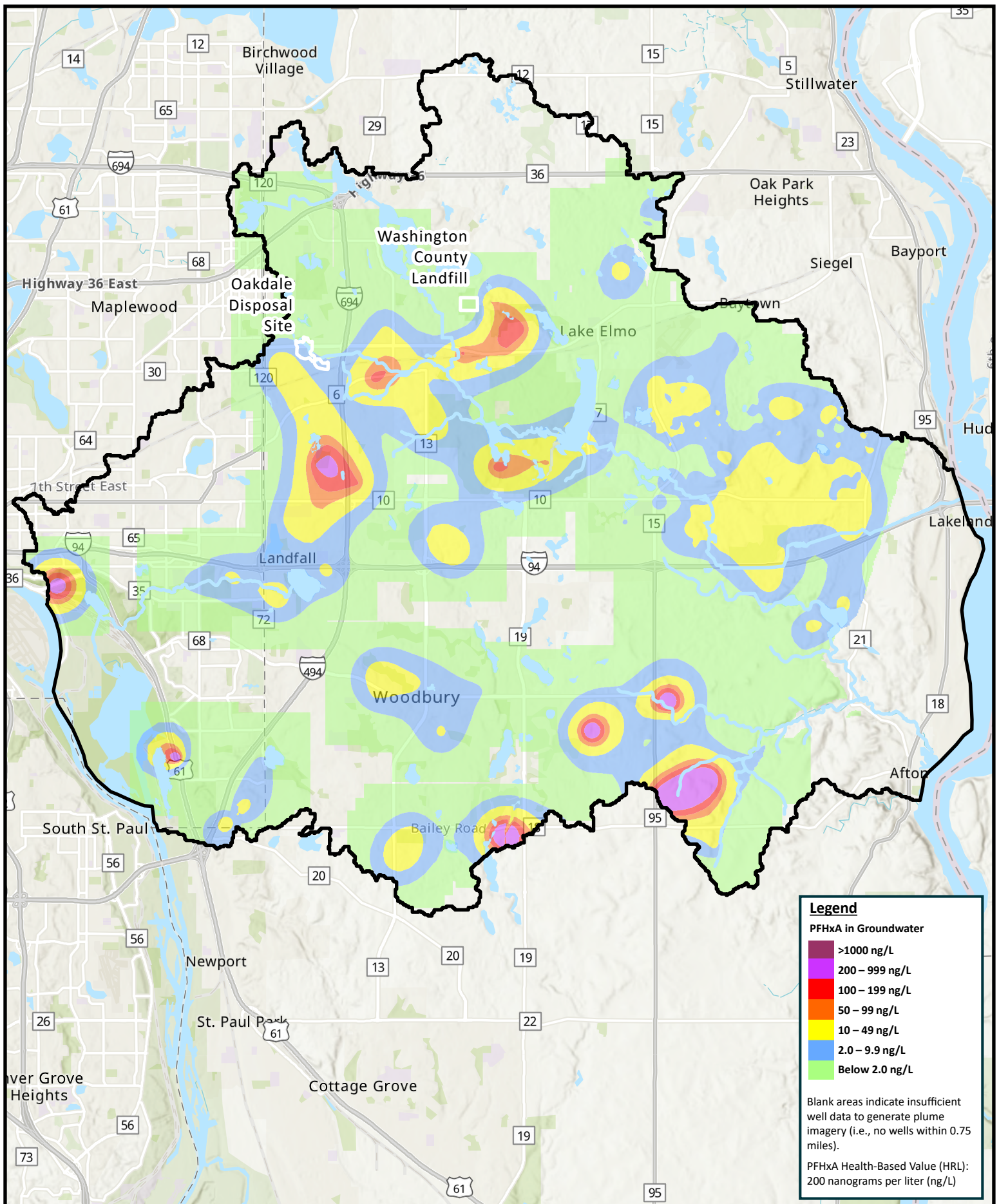
**Figure 150: St. Peter Aquifer
 PFHxA Plume Map
 Project 1007 Feasibility Study**

0 1 2 4
 Miles

Note: This is a draft version of the plume map and is not considered final for this report



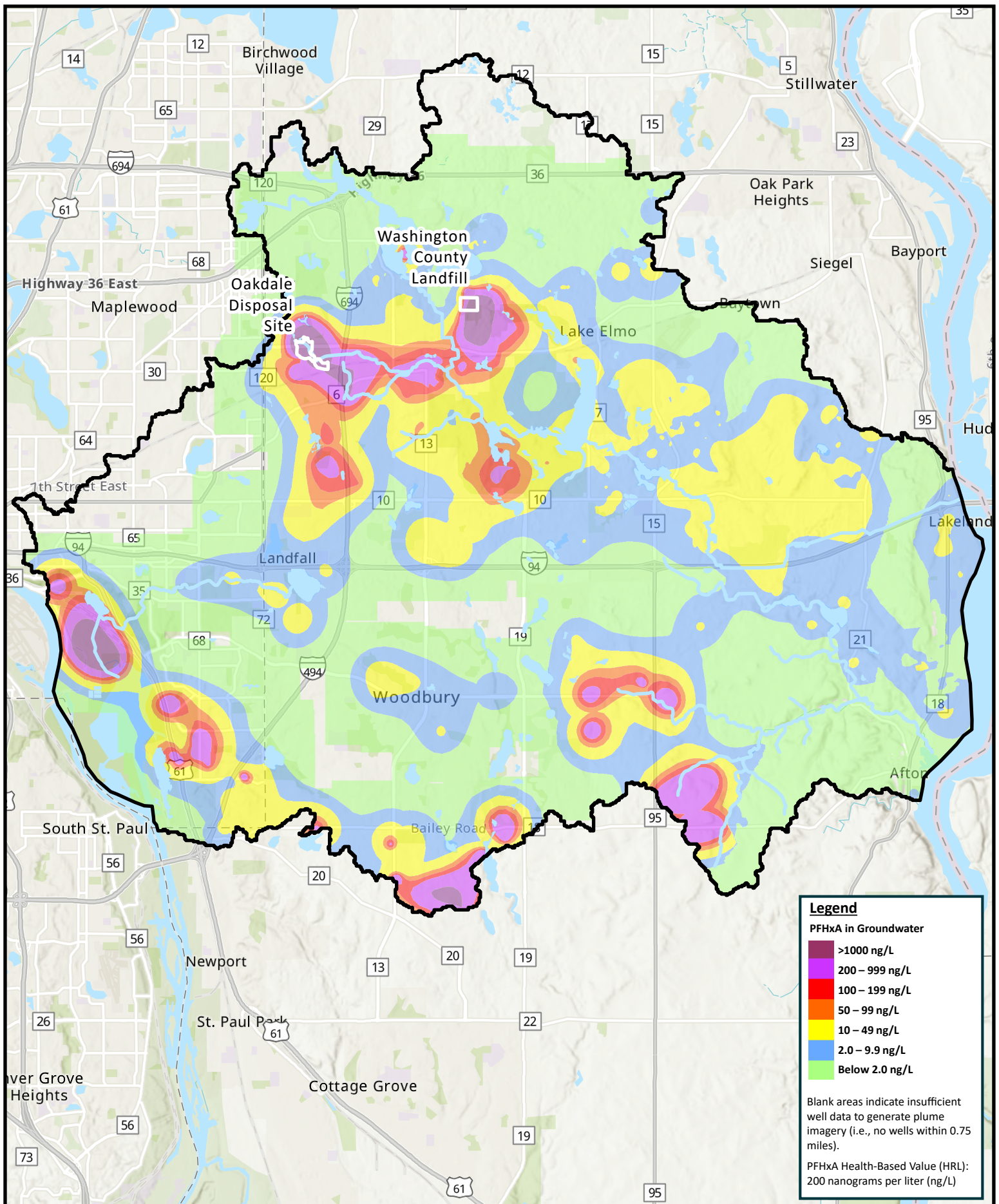
**Figure 151: Prairie du Chien Aquifer
PFHxA Plume Map
Project 1007 Feasibility Study**



**Figure 152: Jordan Aquifer
PFHxA Plume Map
Project 1007 Feasibility Study**

0 1 2 4 Miles

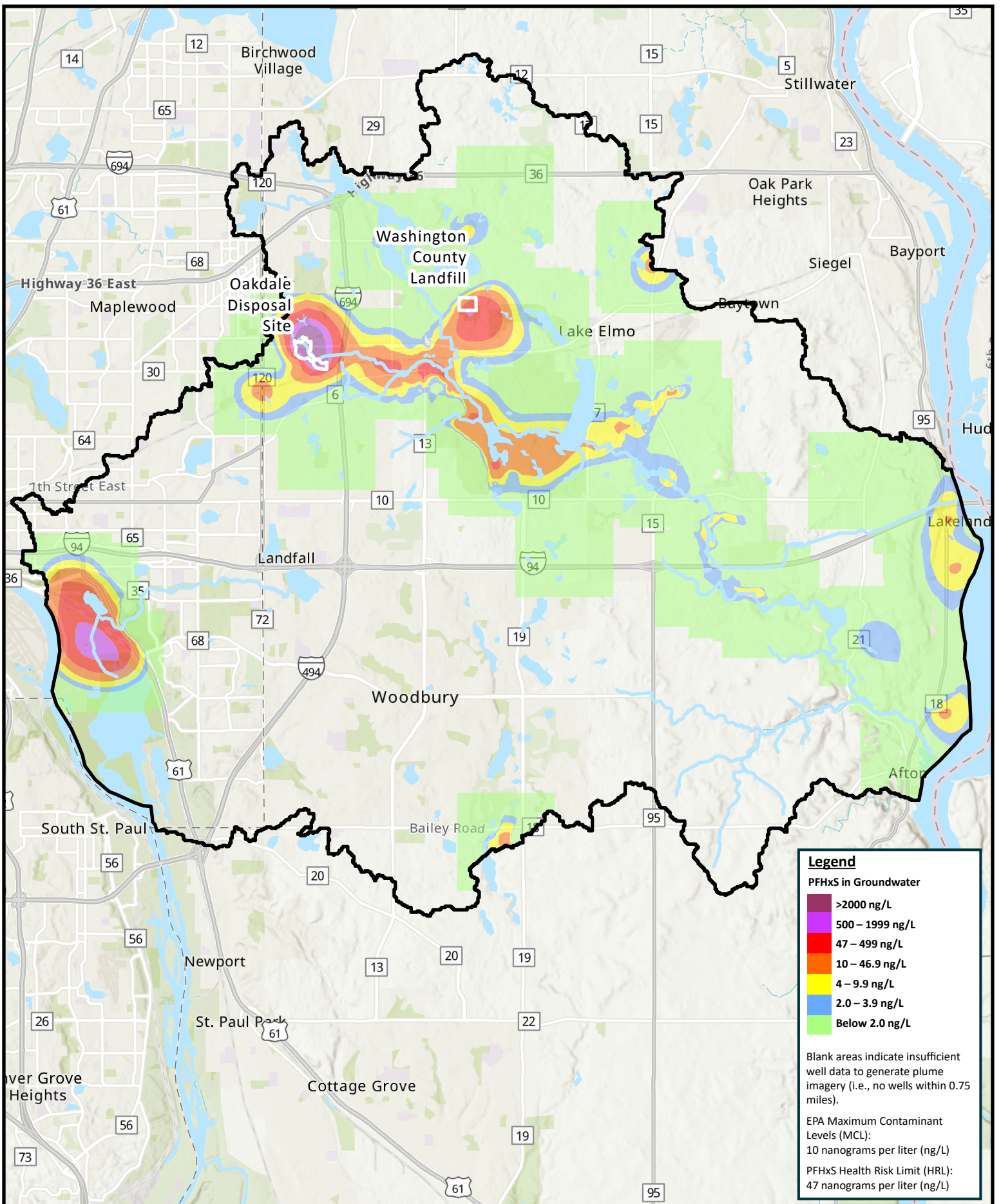
Note: This is a draft version of the plume map and is not considered final for this report



**Figure 153: Quaternary to Jordan Aquifer
PFHxA Plume Map
Project 1007 Feasibility Study**

0 1 2 4
Miles

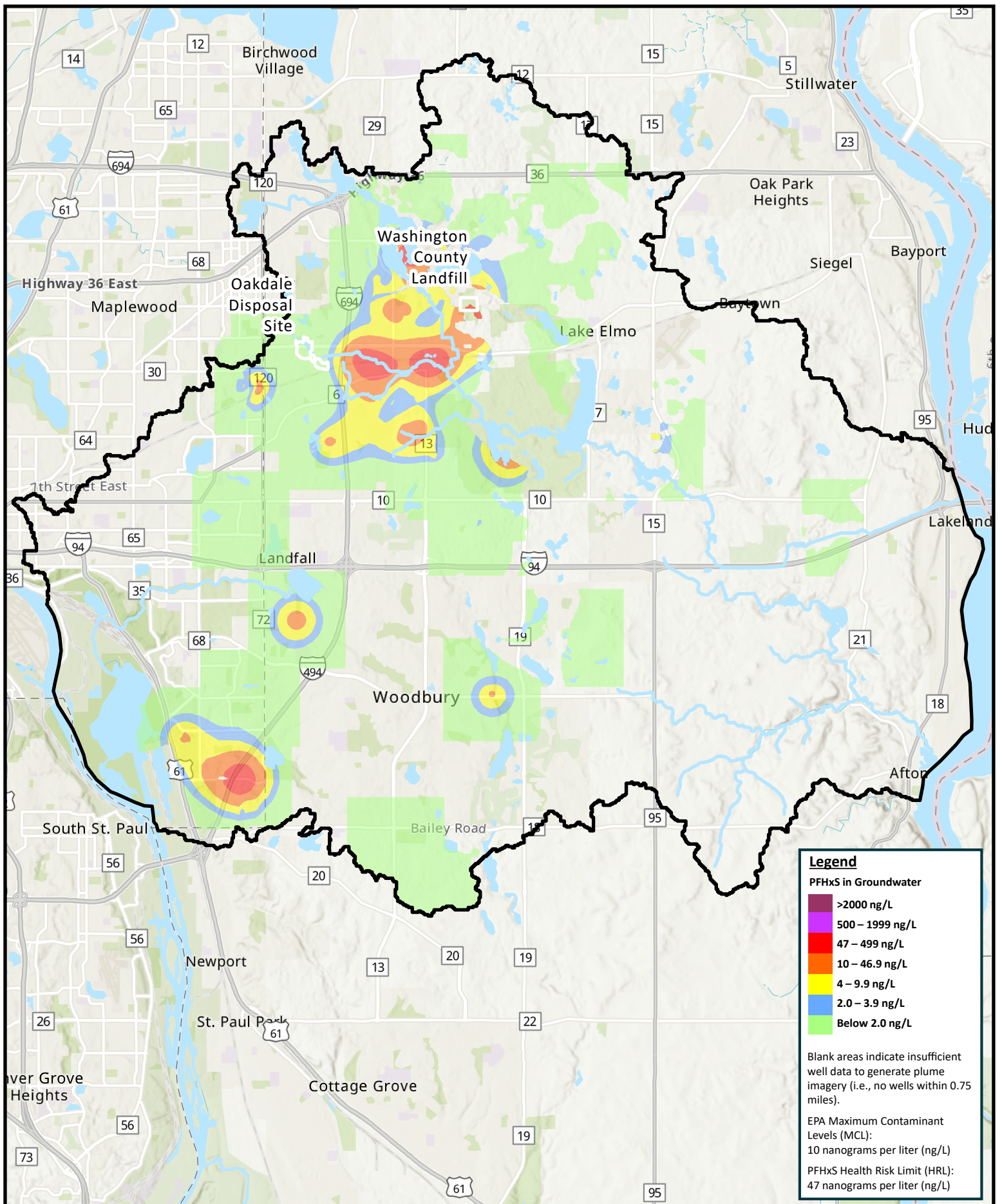
Note: This is a draft version of the plume map and is not considered final for this report



**Figure 154: Quaternary Aquifer
PFHxS Plume Map
Project 1007 Feasibility Study**

0 1 2 4
Miles

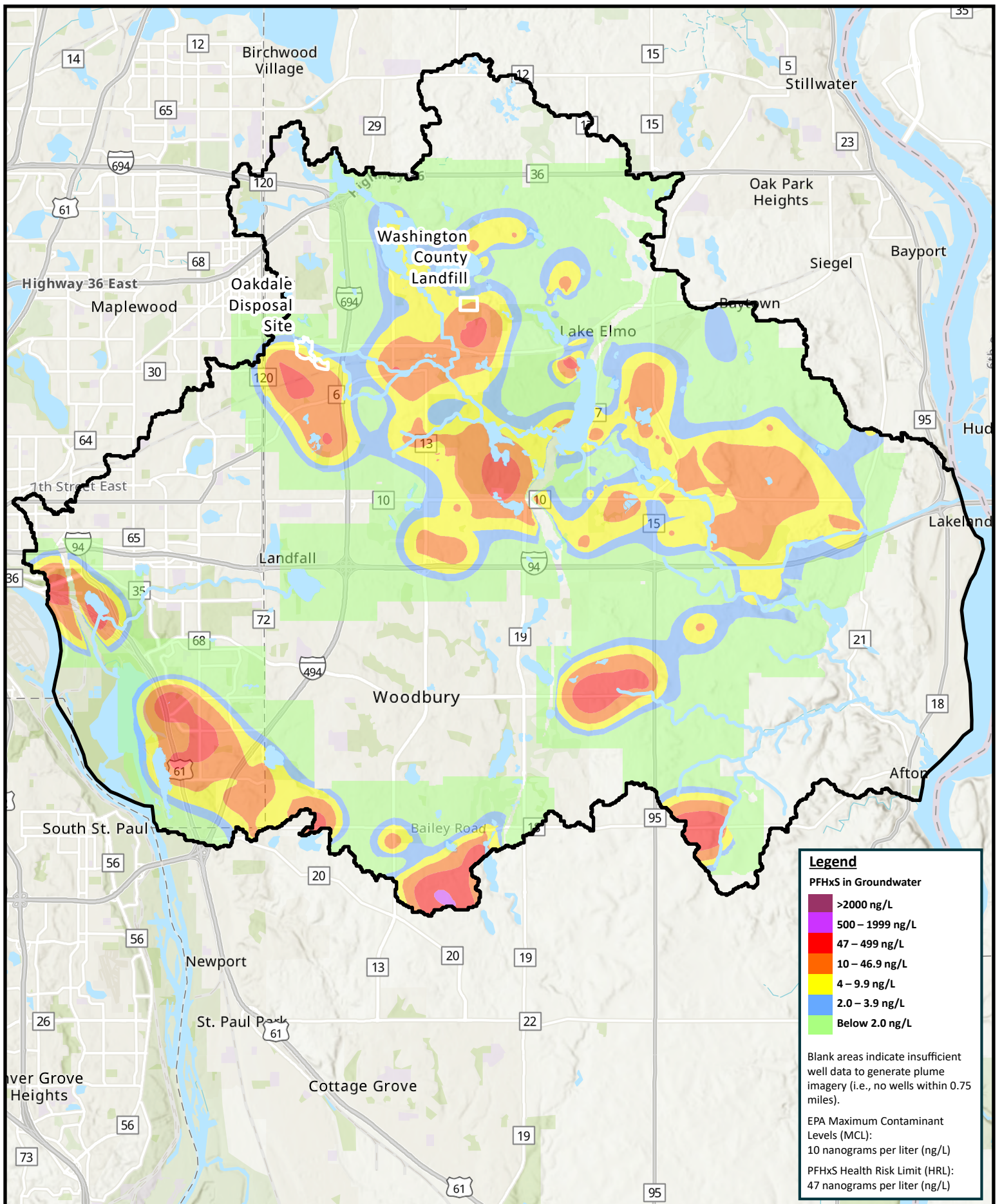
Note: This is a draft version of the plume map and is not considered final for this report



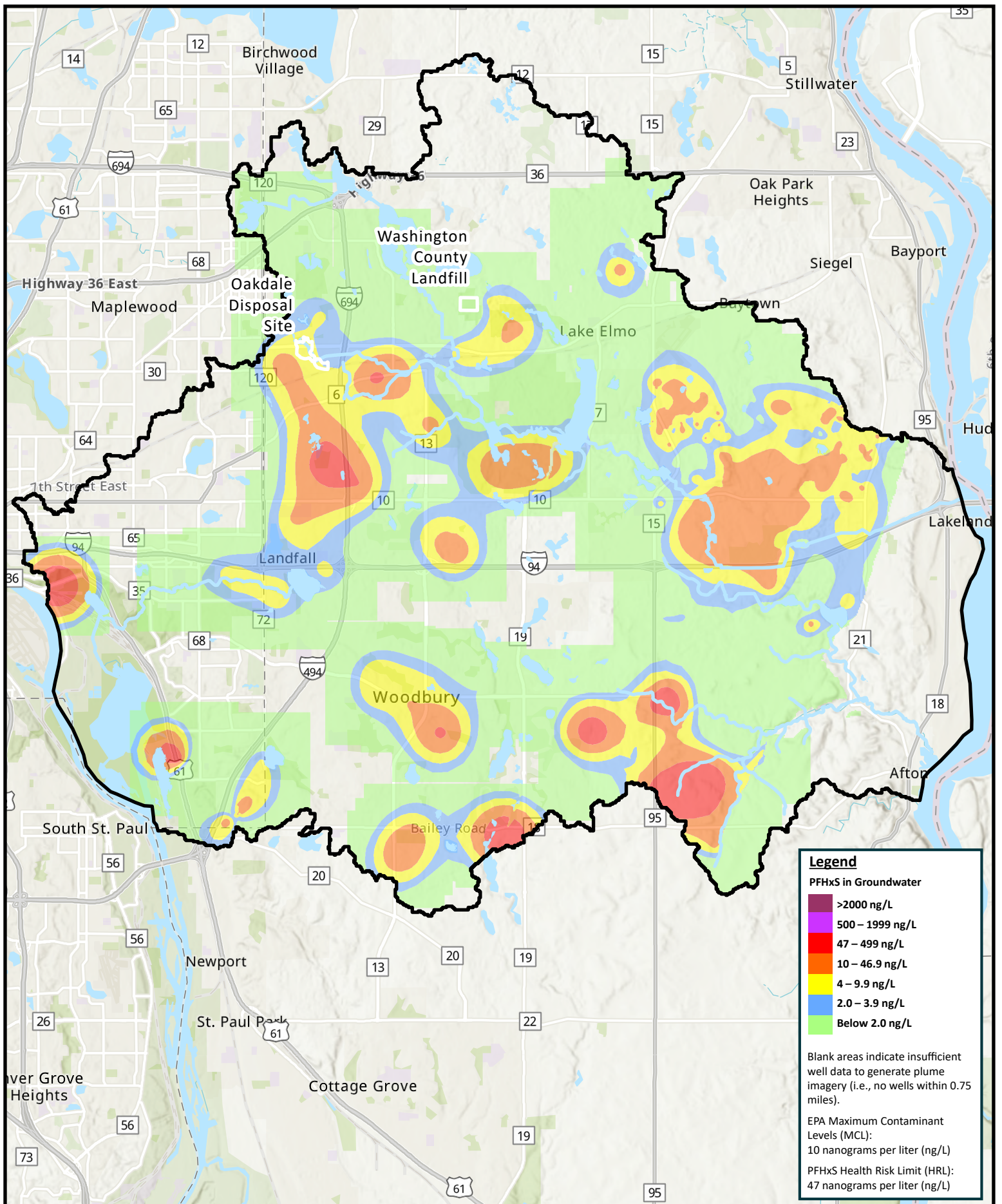
**Figure 155: St. Peter Aquifer
PFHxS Plume Map
Project 1007 Feasibility Study**

0 1 2 4
Miles

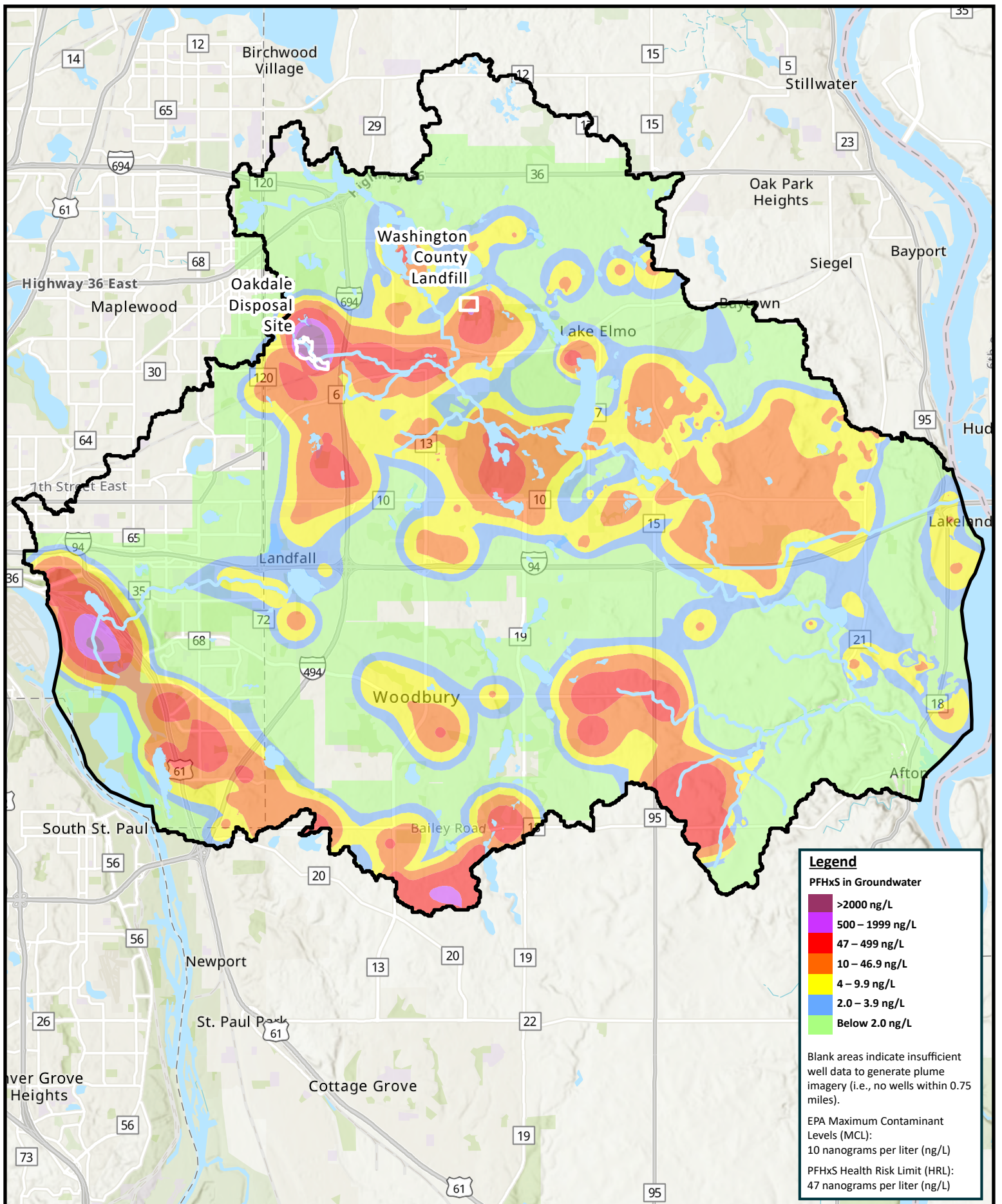
Note: This is a draft version of the plume map and is not considered final for this report



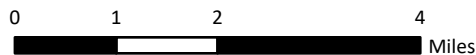
**Figure 156: Prairie du Chien Aquifer
PFHxS Plume Map
Project 1007 Feasibility Study**



**Figure 157: Jordan Aquifer
PFHxS Plume Map
Project 1007 Feasibility Study**



**Figure 158: Quaternary to Jordan Aquifer
PFHxS Plume Map
Project 1007 Feasibility Study**



Note: This is a draft version of the plume map and is not considered final for this report

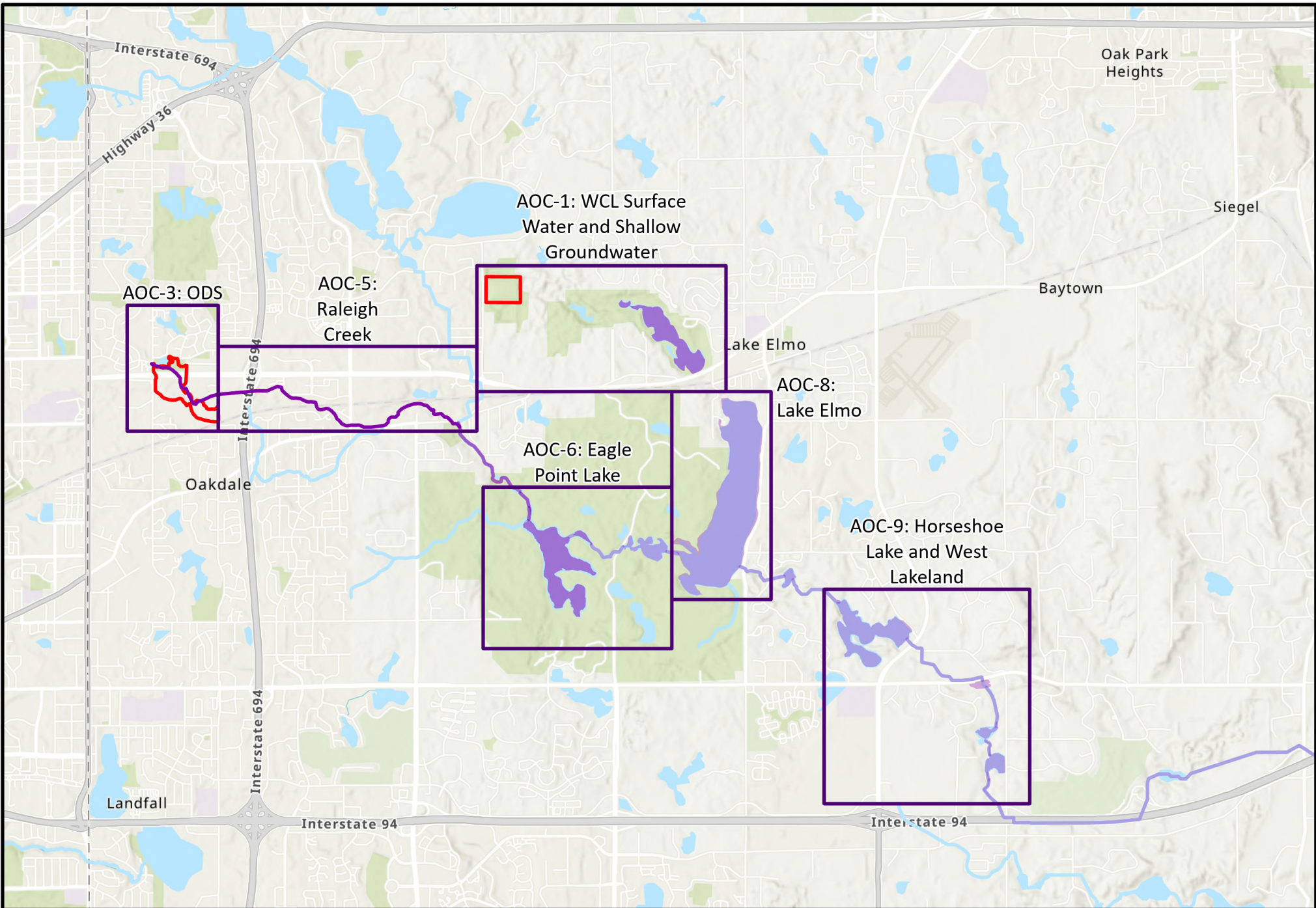
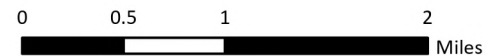


Figure 159: Surface Water Areas of Concern



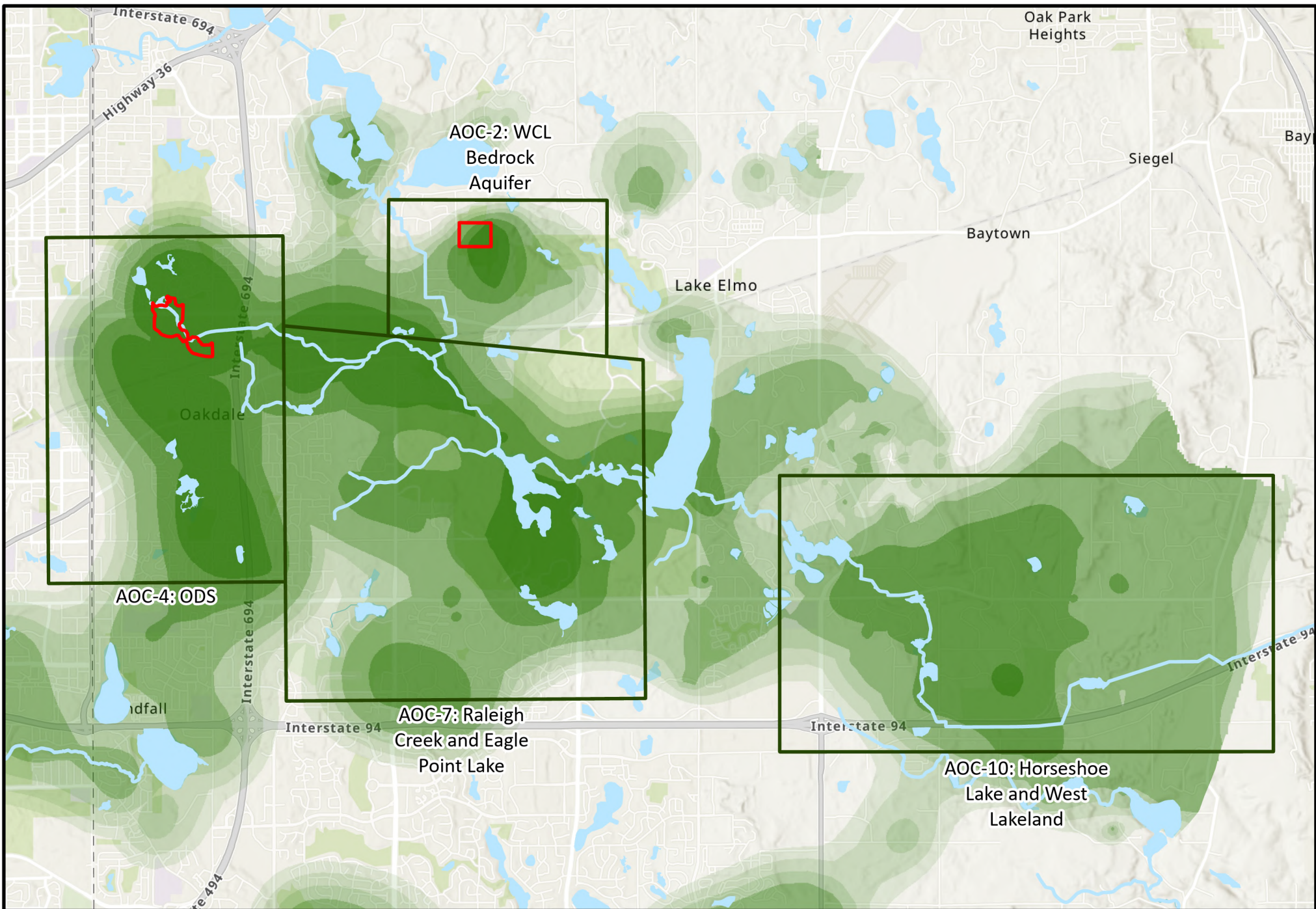
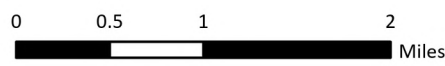
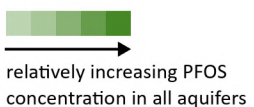


Figure 160: Groundwater Areas of Concern



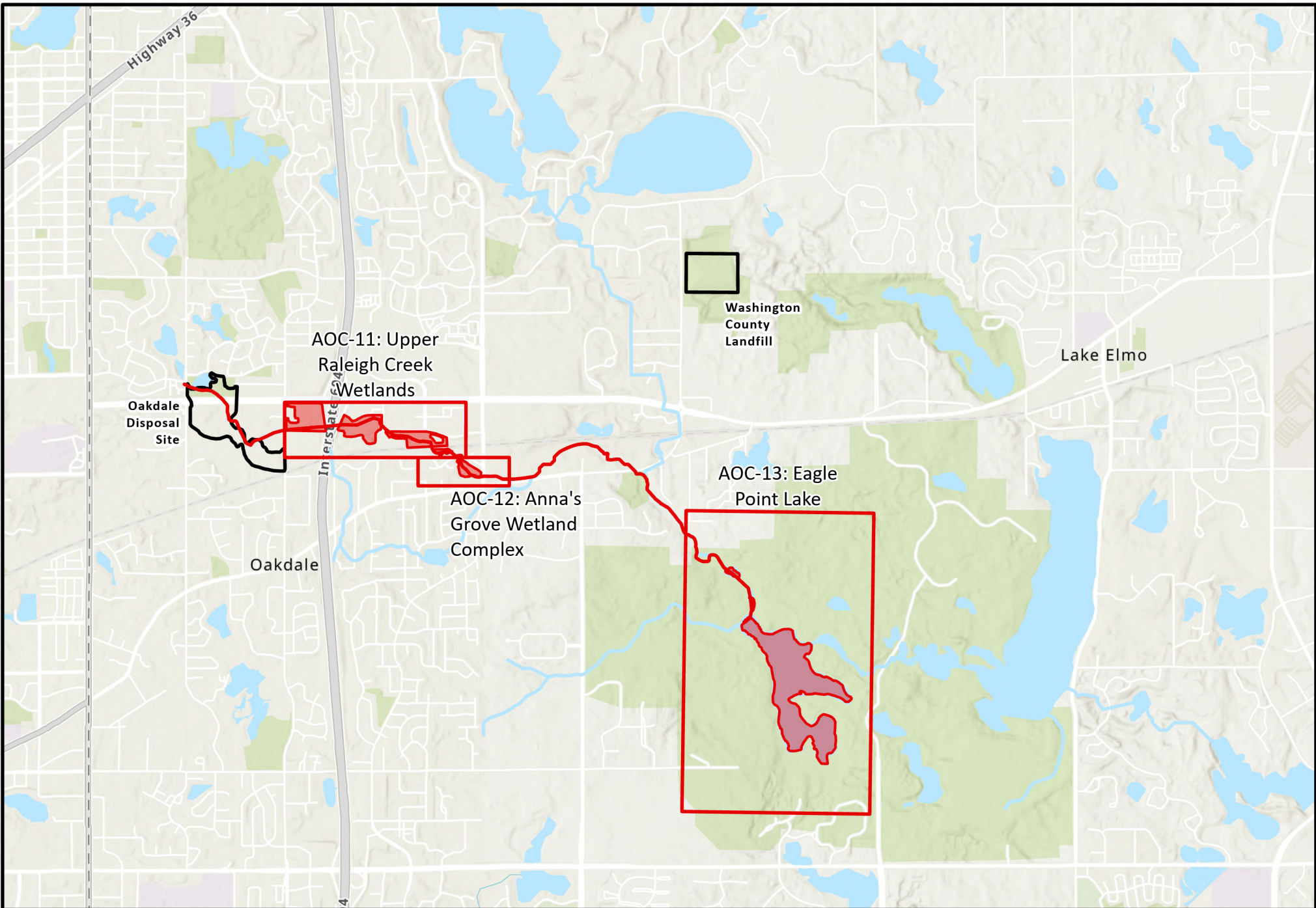


Figure 161: Sediment Areas of Concern

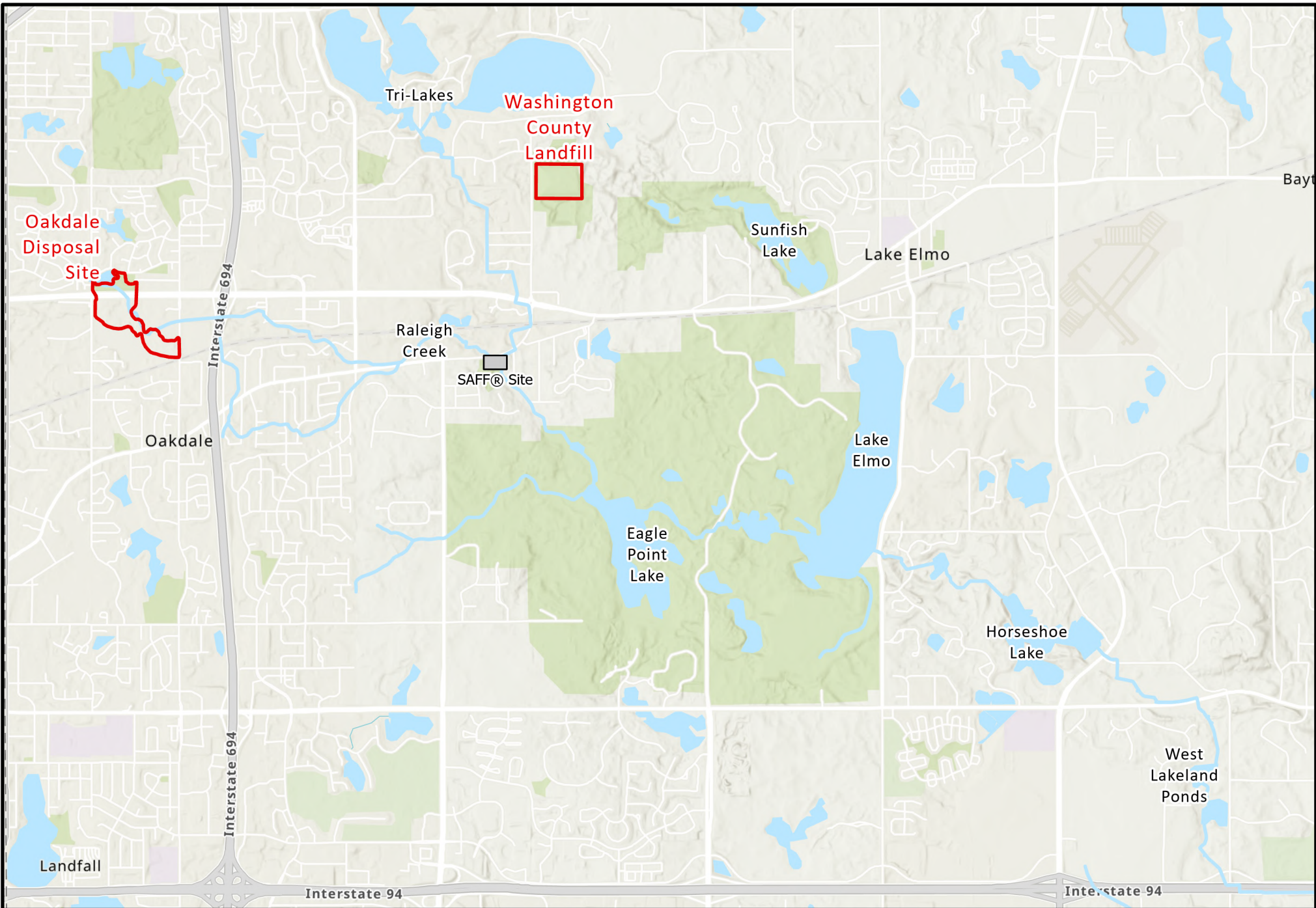
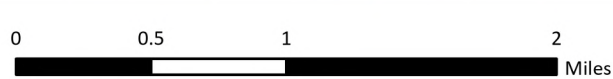


Figure 162: SAFF® Site Location



SAFF® Site

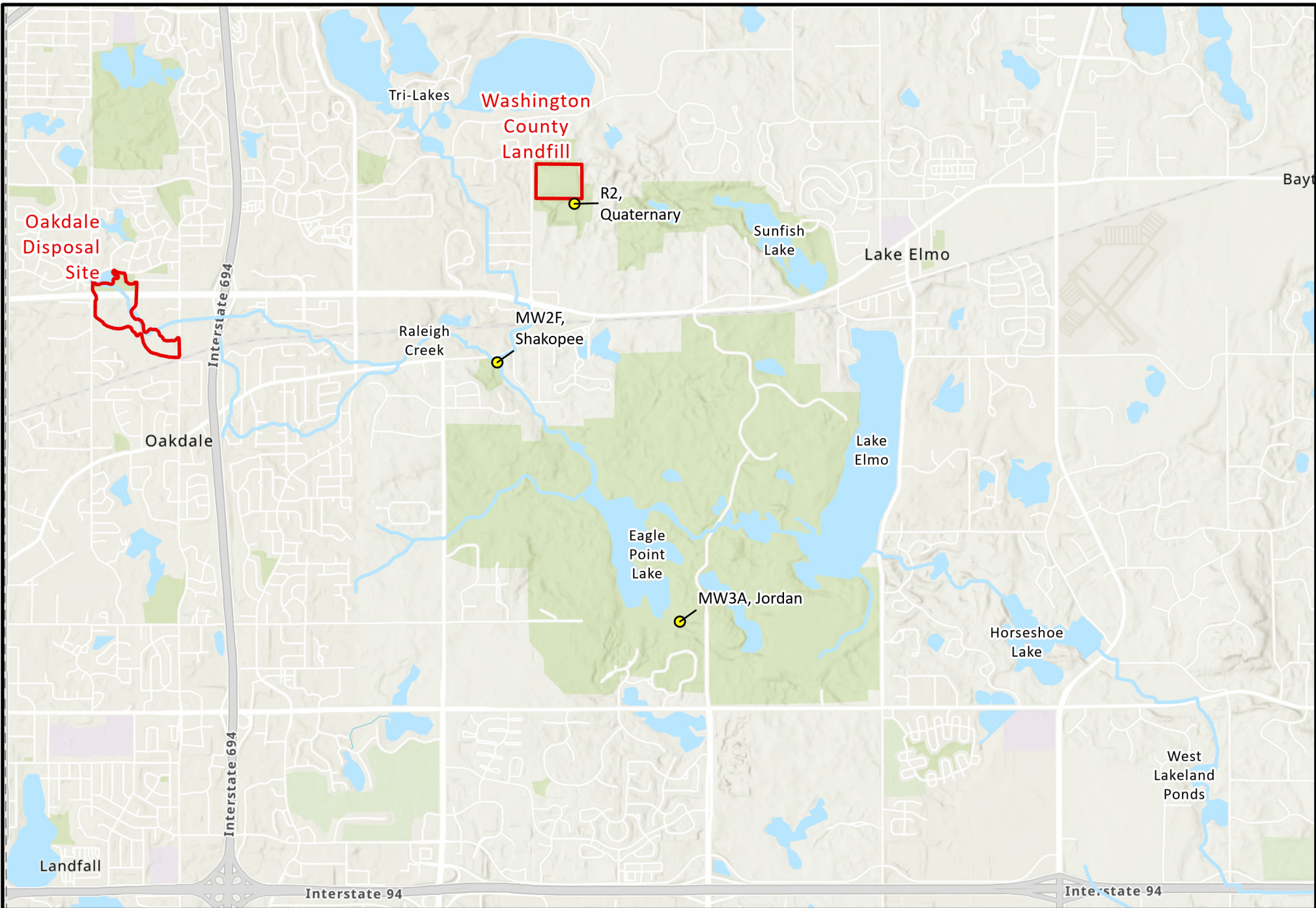
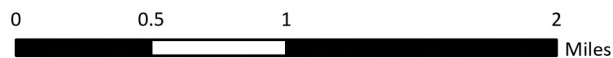


Figure 163: Groundwater Sample Locations
 Treatability Study and RSSCTs
 Project 1007 Feasibility Study



● Groundwater Sample Location

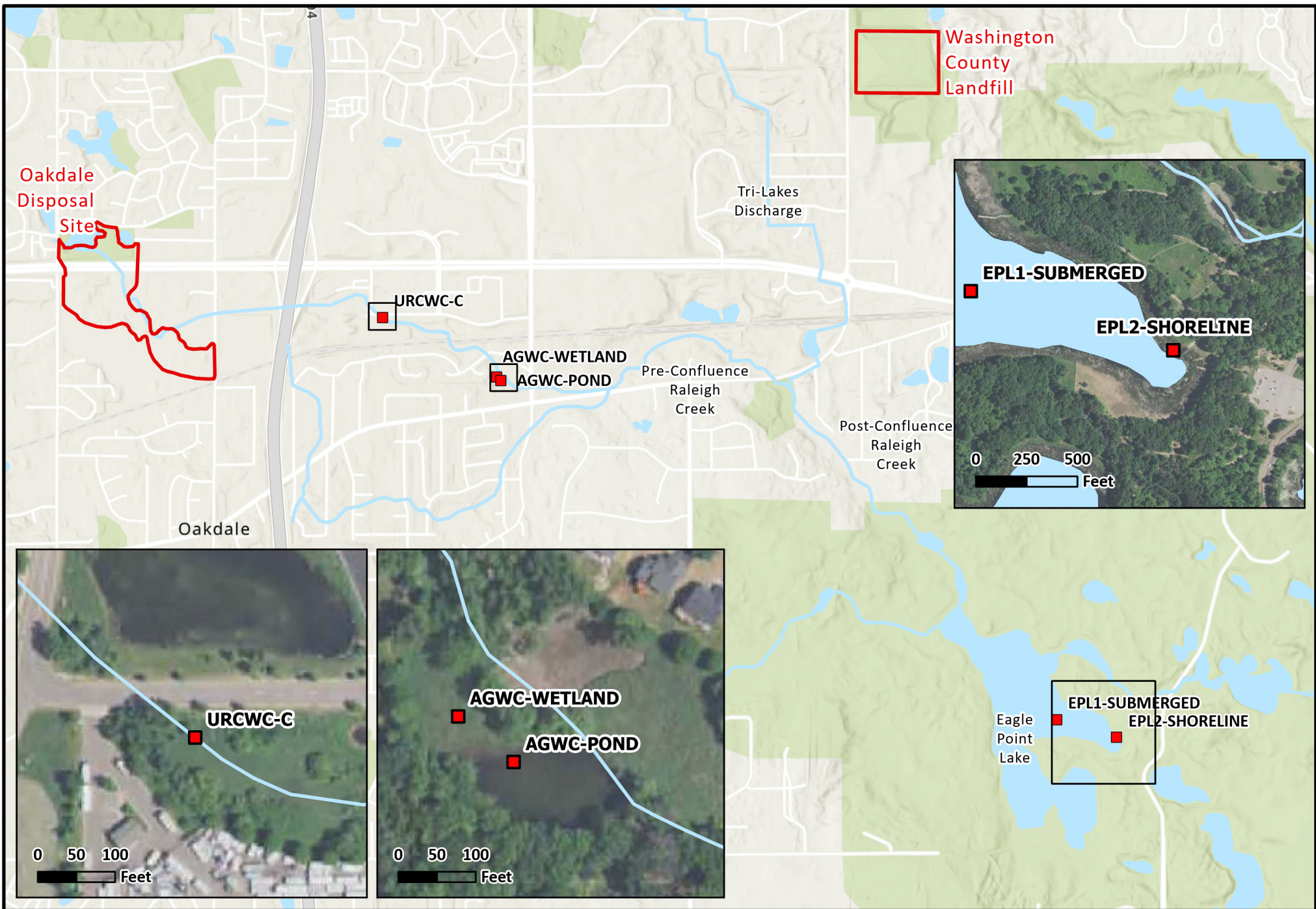


Figure 164: Sediment Leachability Study Sample Locations