

Map/Data Source: Barr Engineering

- Sampling Locations (Heath 2004)
- River/Stream
- ++++ Railroad
- Watershed Boundary
- Embarrass River Watershed Boundary

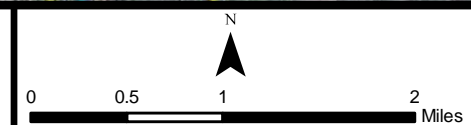
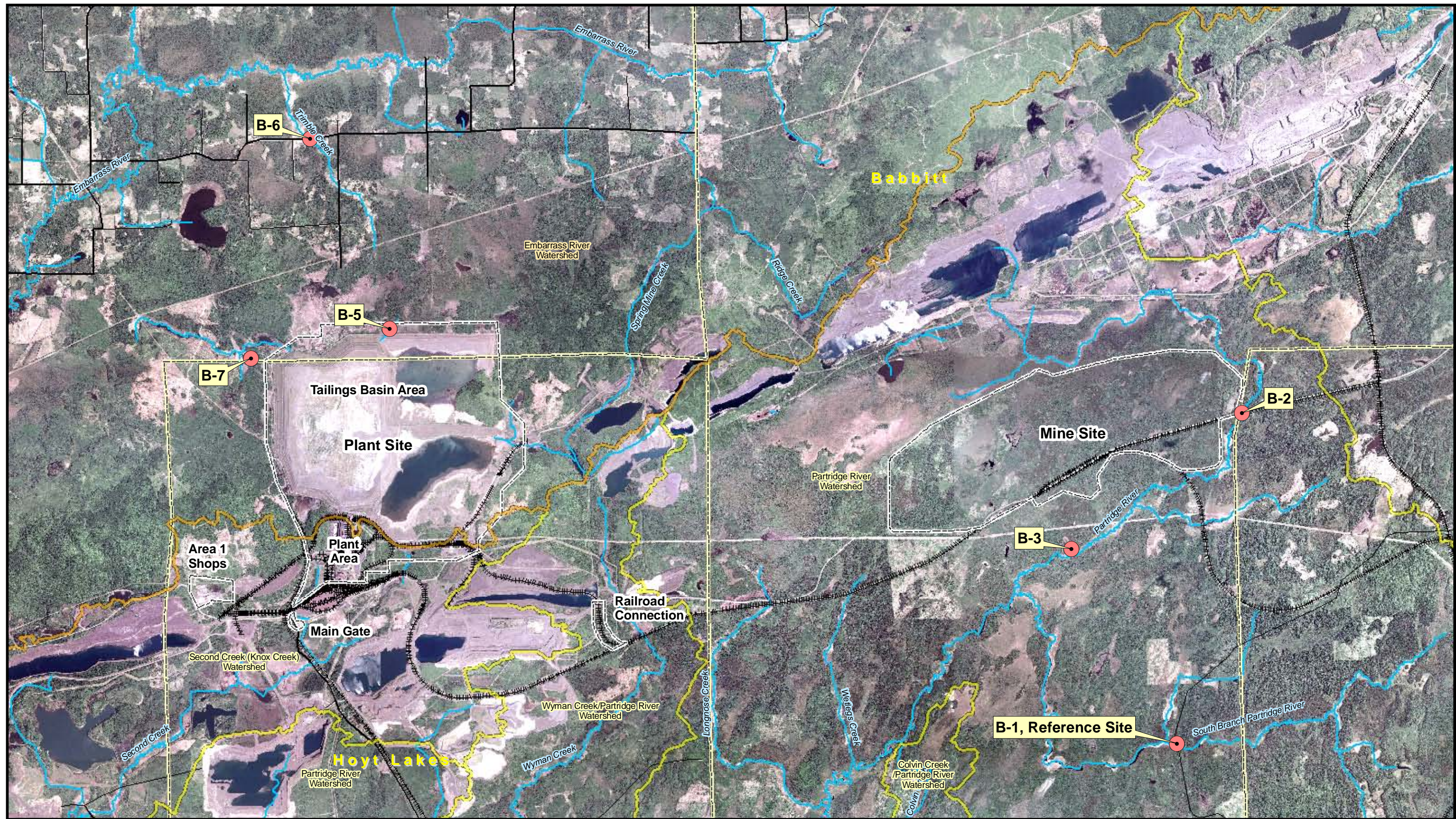


Figure 4.5-1
Freshwater Mussel Sampling Locations

NorthMet Project
PolyMet Mining, Inc.
St. Louis County, Minnesota

October 2009



Map/Data Source: Barr Engineering

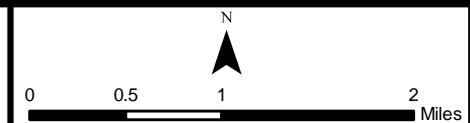
● Sampling Locations (Breneman, 2005)

— River/Stream

++++ Railroad

□ Watershed Boundary

□ Embarrass River Watershed Boundary



**Figure 4.5-2
Biological Sampling Points**

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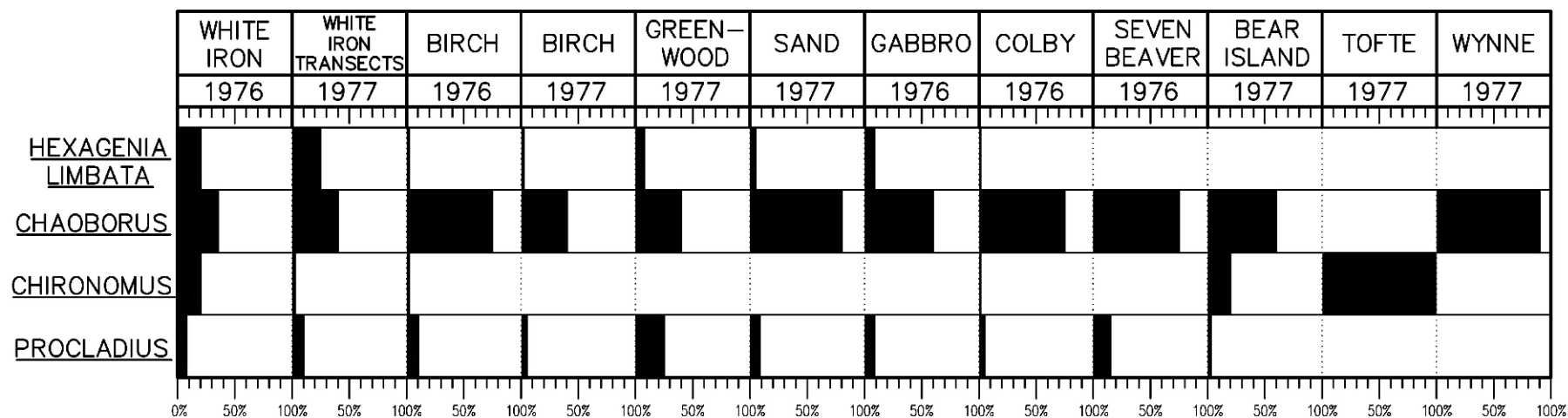


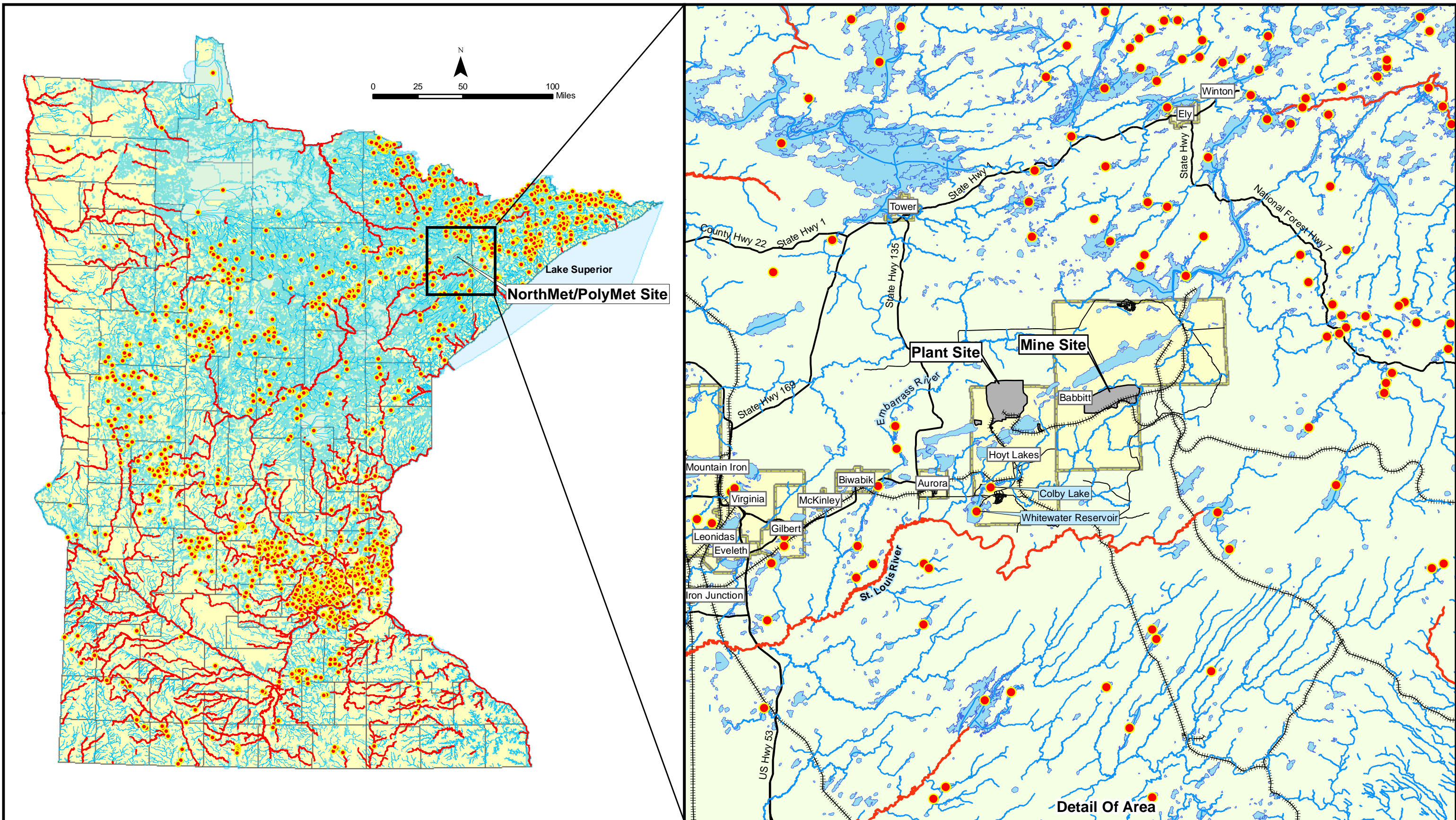
Figure Source: Barr Engineering

No Scale



Figure 4.5-3
Mean Percent Composition of Dominant
Taxa in Lakes
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PolyMet Mining, Inc.
St. Louis County, Minnesota

October 2009



Data Source: MnDNR

- Mercury Impaired Lake/Reservoir
- Mercury Impaired River/Stream
- PWI Rivers and Streams
- PWI Lakes
- Area Roads
- - - - - Existing Railroads
- Incorporated Limits of Cities/Villages

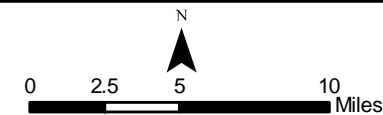


Figure 4.5-4
Mercury Impaired Waters of Minnesota

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Methylmercury Enrichment at 0 cm, 5 cm, and 10 cm Depth Resulting from Experimental 2X and 20X Enrichment of Average Monthly Sulfate Deposition to the Surface of a Pristine Peatland in Northwestern Ontario

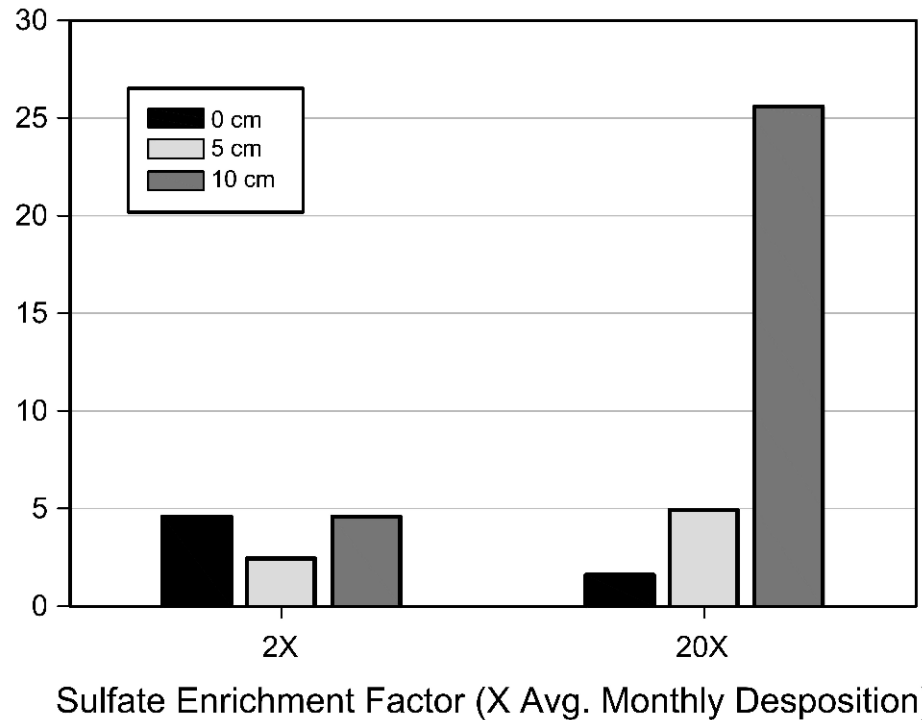


Figure Source: Barr Engineering

No Scale



Figure 4.5-5
MeHg Response to Sulfate Addition

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