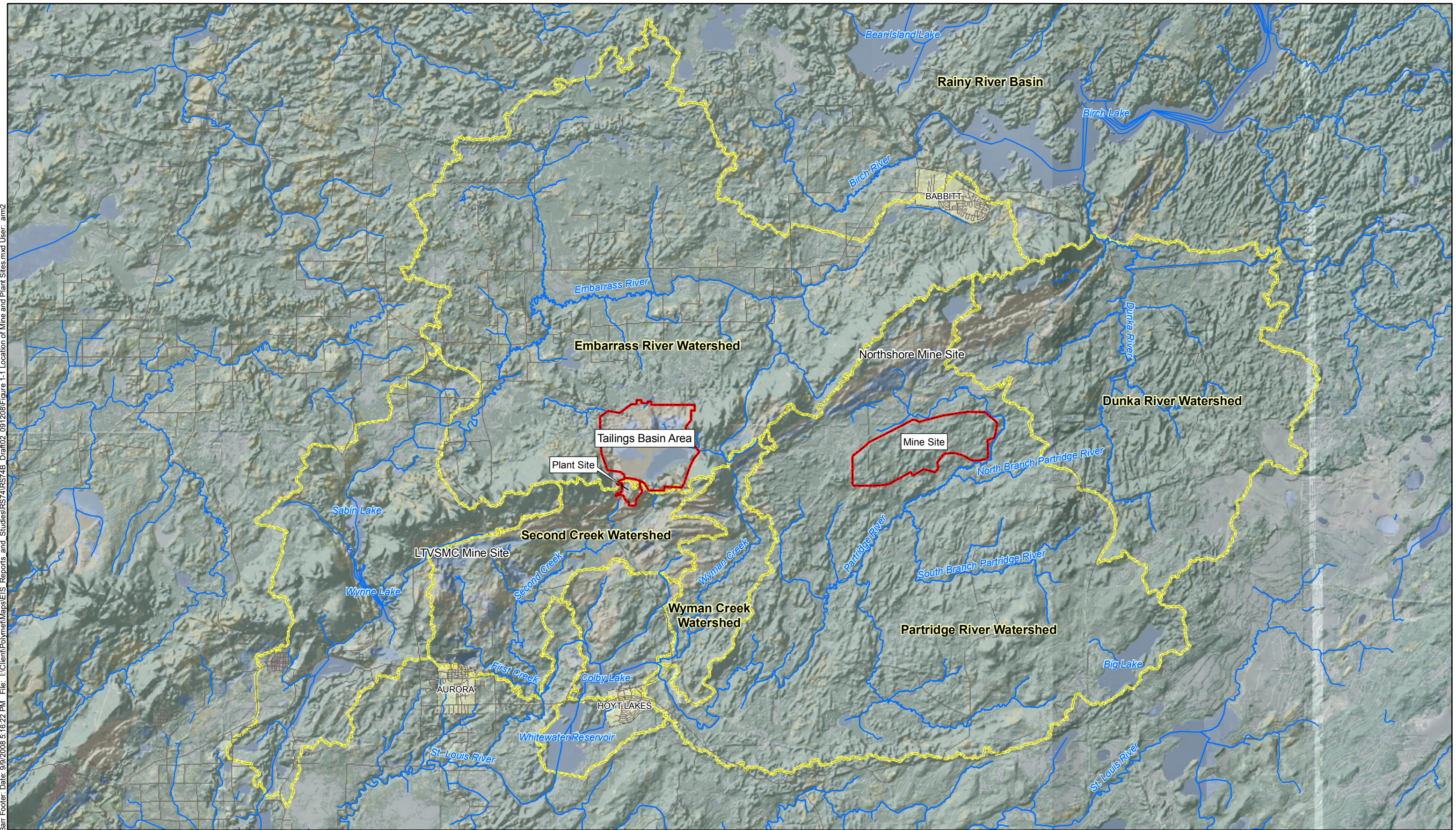


Barr Footer: Date: 9/9/2008 5:16:22 PM File: I:\Client\Polymet\Maps\EIS Reports and Studies\RS74\RS74B Draft02 091208\Figure 1-1 Location of Mine and Plant Sites.mxd User: am2



- Streams/Rivers
- Roads
- Watershed Boundaries
- Municipality

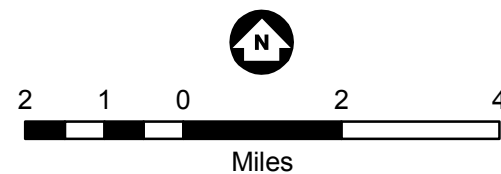
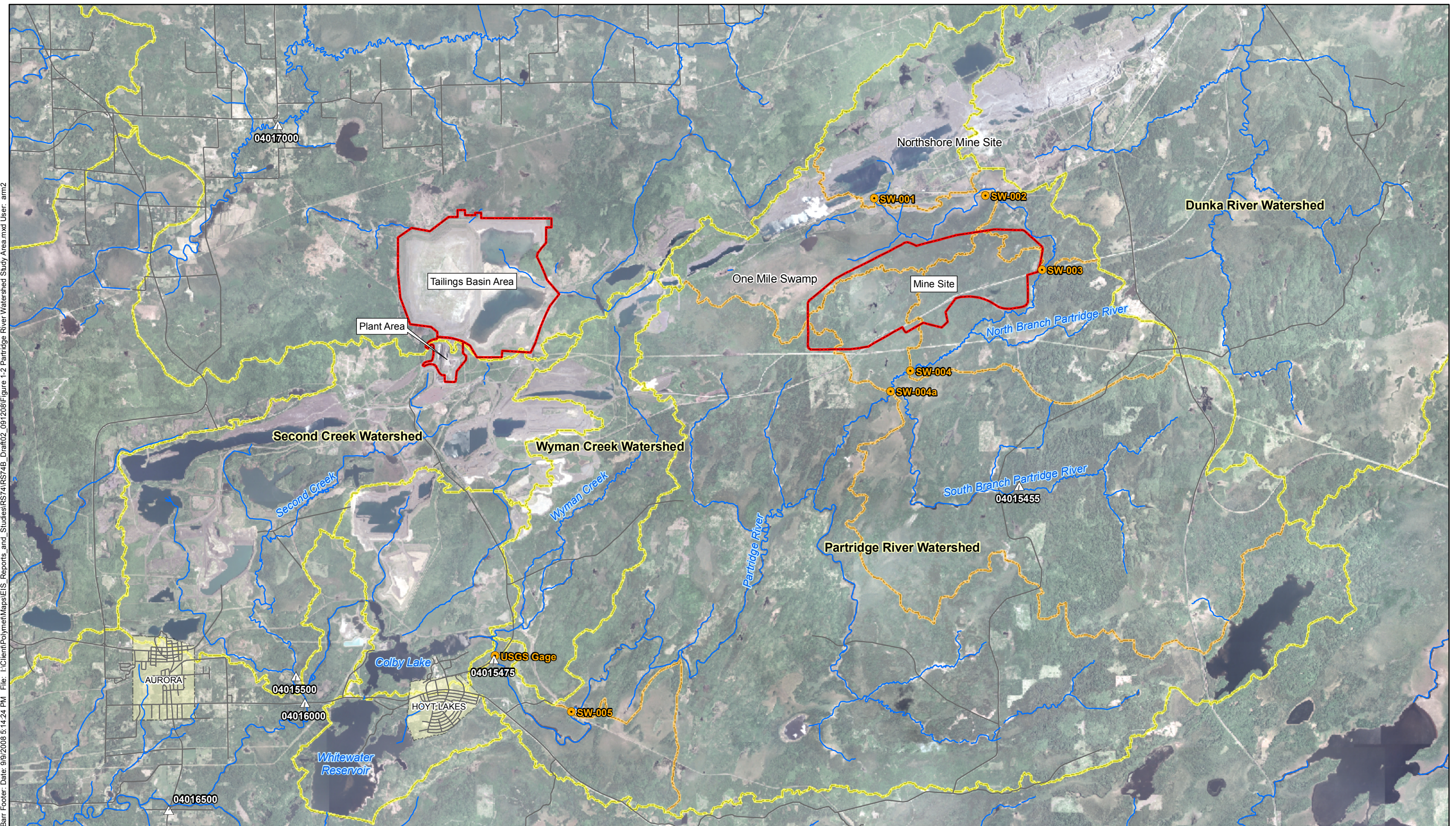


Figure 1-1
LOCATION OF MINE AND PLANT SITES
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

Barr Footer: Date: 9/9/2008 5:14:24 PM File: I:\Client\Polymet\Maps\EIS_Reports_and_Studies\RS74\RS74B_Draft02_091208\Figure 1-2 Partridge River Watershed Study Area.mxd User: am2



- △ USGS Stations
- Partridge River Surface Water Monitoring Stations
- ▭ Watershed Boundaries
- ▭ Surface Water Monitoring Subwatersheds
- Streams/Rivers
- ▭ Municipality

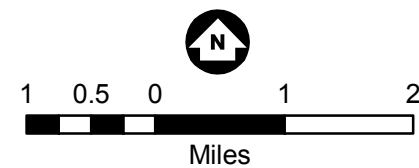
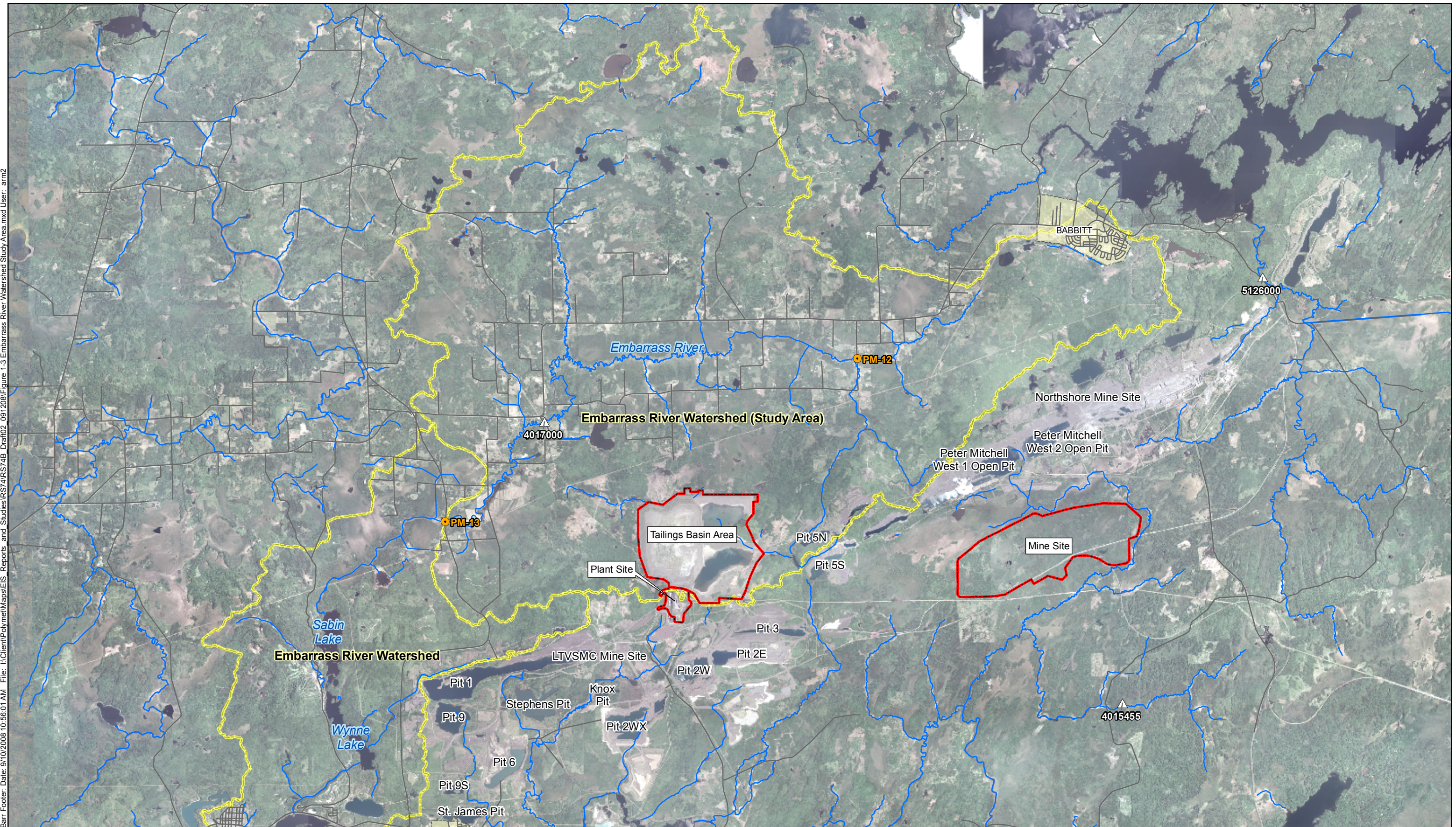


Figure 1-2
PARTRIDGE RIVER WATERSHED
STUDY AREA
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



-  USGS Stations
-  Embarrass River Surface Water Monitoring Stations
-  Watershed Boundaries
-  Streams/Rivers
-  Municipality

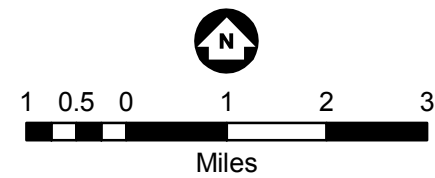
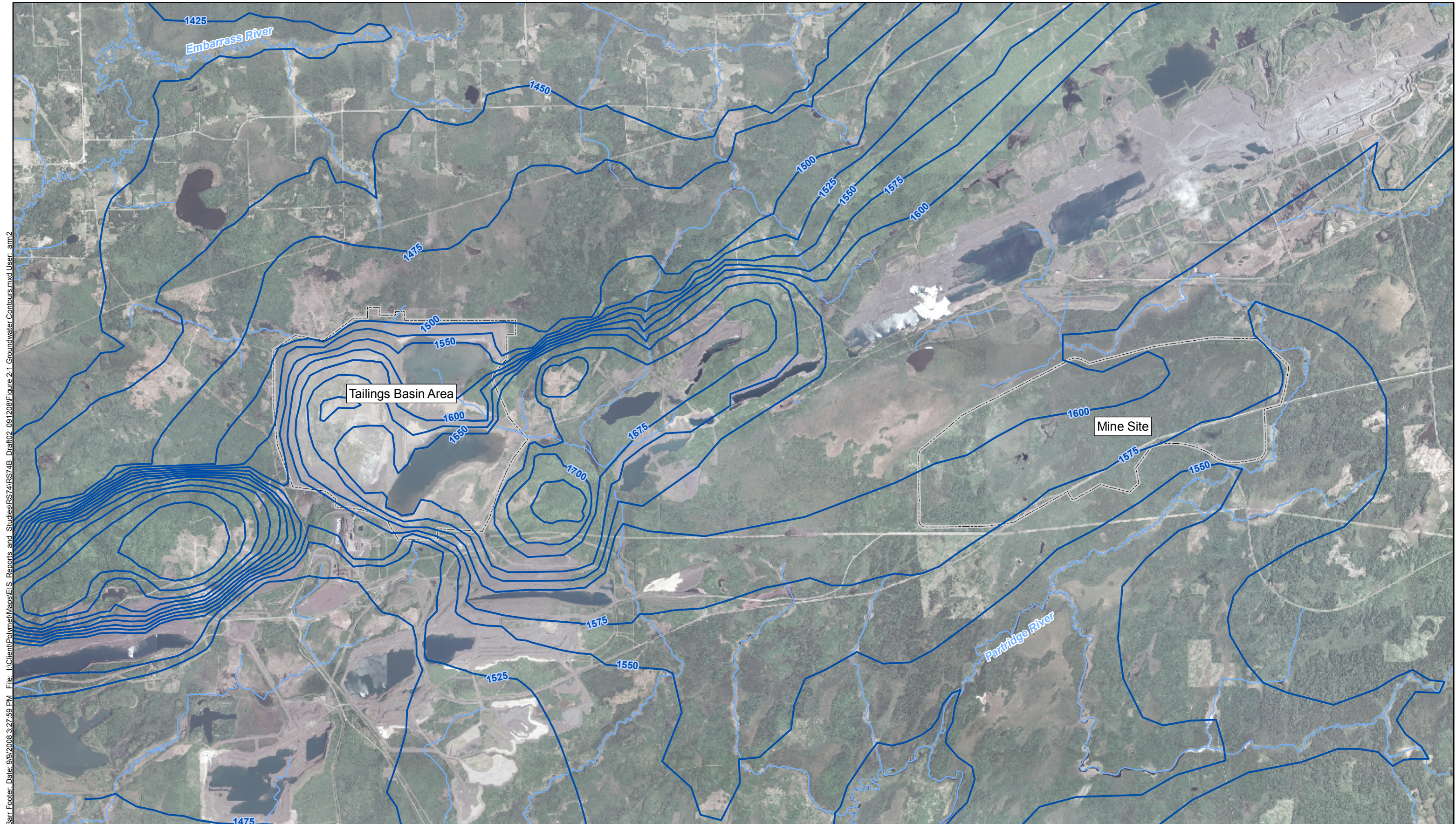


Figure 1-3
EMBARRASS RIVER WATERSHED
STUDY AREA
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Barr Footer Date: 9/9/2008 3:27:59 PM File: I:\Client\PolyMet\Maps\EIS Reports and Studies\RS74\RS74B Draft02 091208\Figure 2-1 Groundwater Contours.mxd User: am2

- Groundwater Contour*
(Contour Interval = 25 ft)
- Streams/Rivers

* Groundwater contours based on modeling results presented in RS22 and RS13, elevation data for surface water features, and data presented in Siegel and Ericson, 1980.

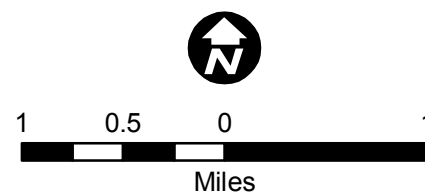
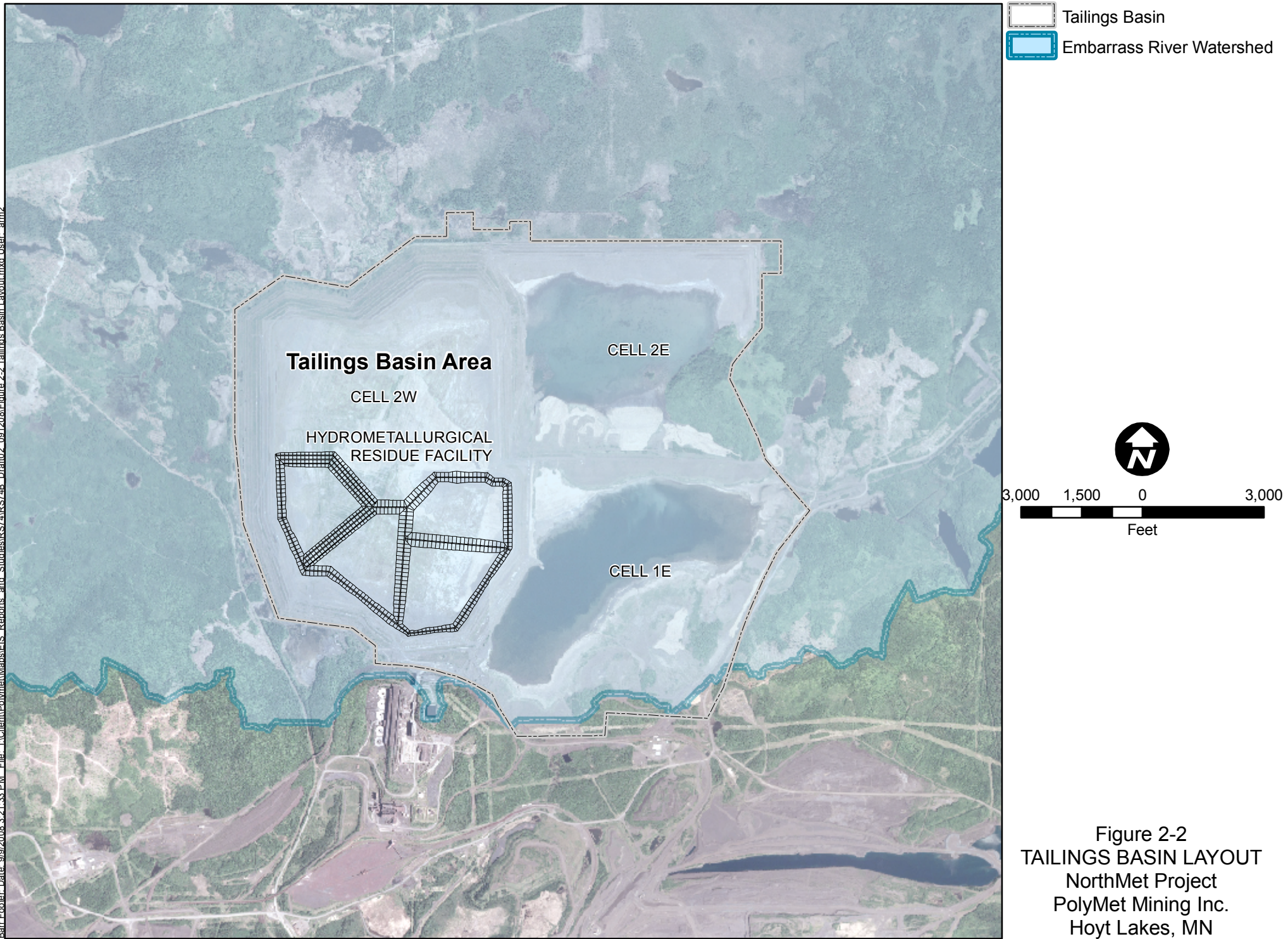


Figure 2-1
GROUNDWATER CONTOURS
TAILINGS BASIN AND MINE SITE
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN





- Groundwater Monitoring Well
- ▭ Embarrass River Watershed

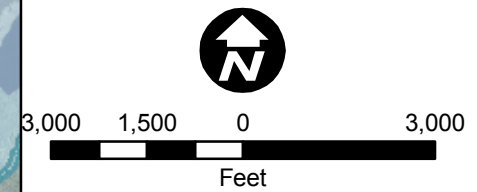
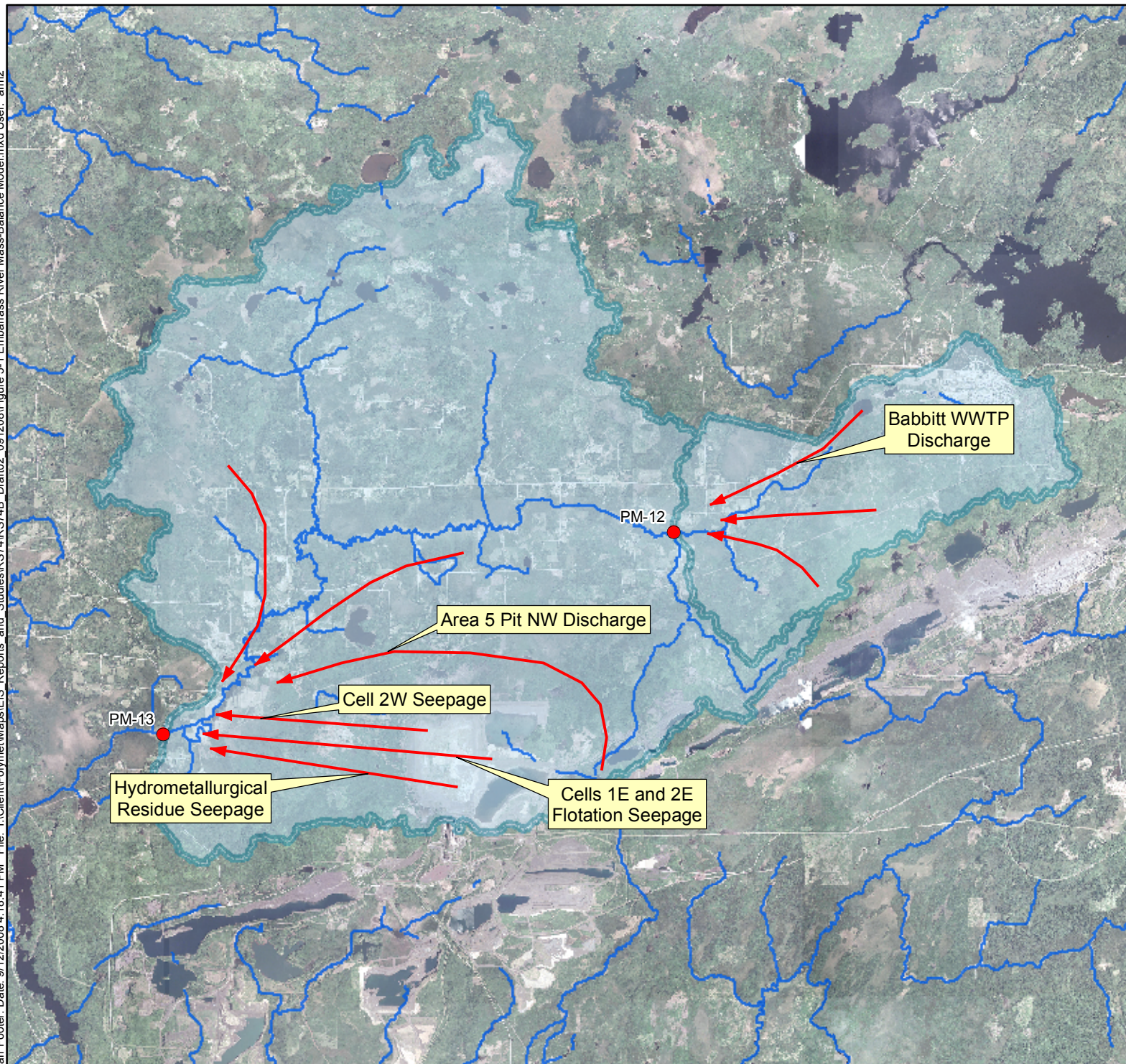


Figure 2-3
GROUNDWATER MONITORING
WELLS NEAR TAILINGS BASIN
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



- Mass-Balance Model Flows
- Mass-Balance Model Nodes
- ▭ Embarrass River Watersheds

Note: Surface runoff and groundwater contribute at each node.

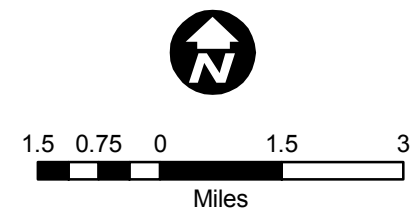


Figure 5-1
EMBARRASS RIVER
MASS-BALANCE MODEL
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

Figure 5-2. Schematic of Embarrass River mass-balance model

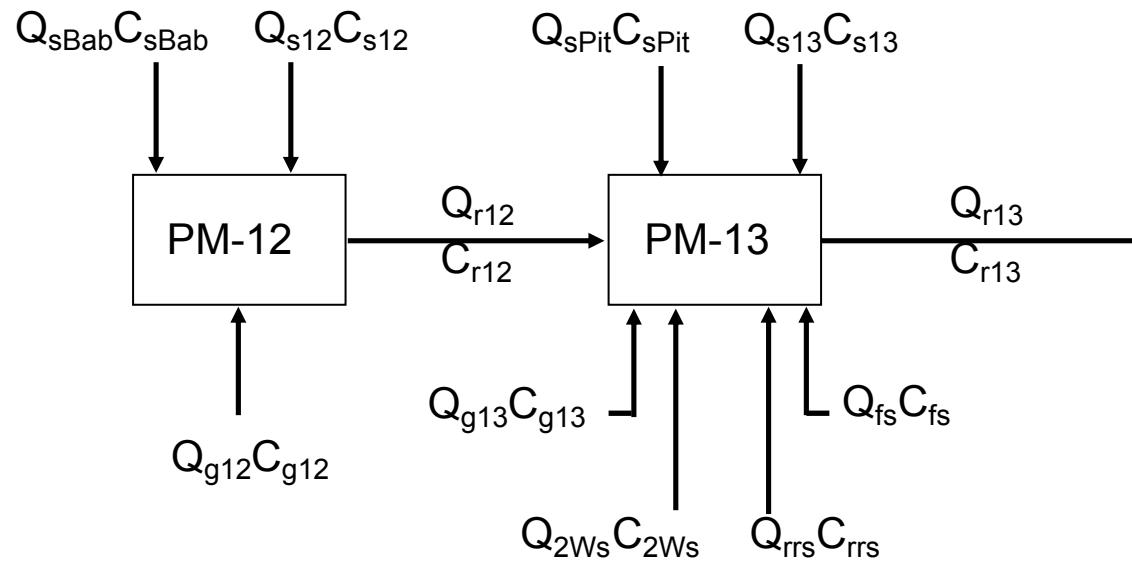


Figure 5-3: Deterministic Water Quality Predictions for Arsenic, Cobalt, Copper, Nickel, Antimony and Sulfate at PM-12 (Embarrass River) as a Function of Tailings Basin - Proposed Action Development

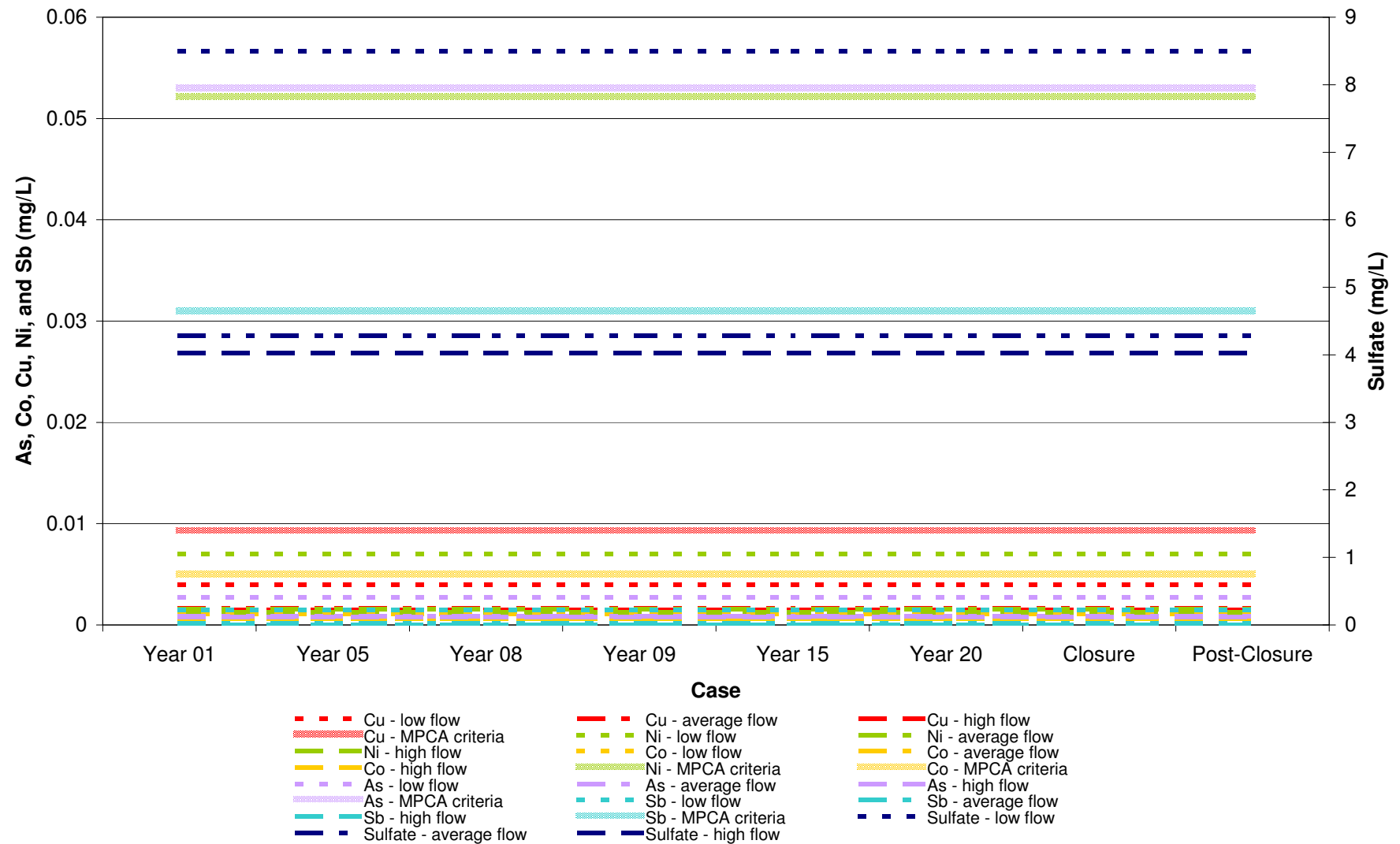
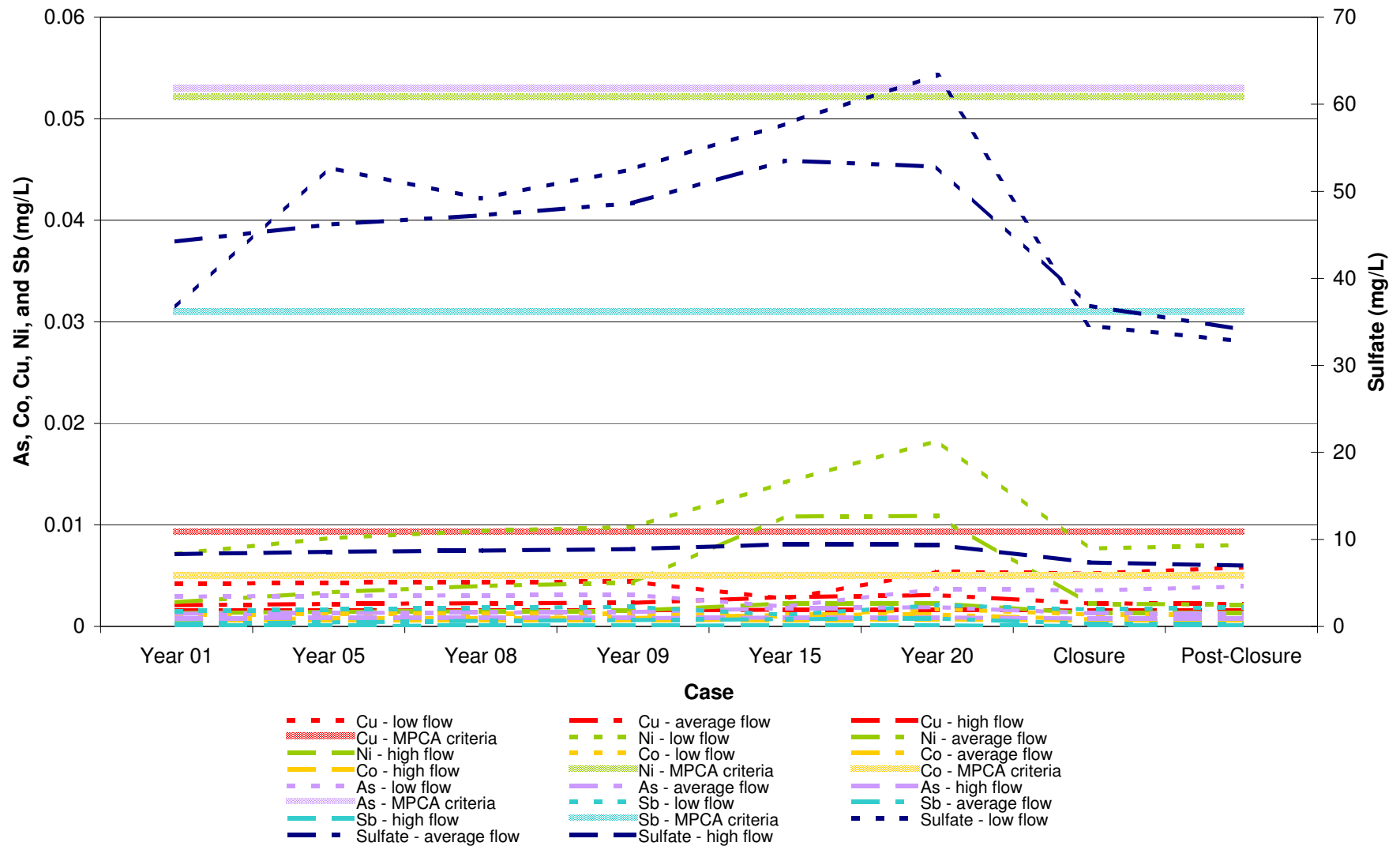


Figure 5-4: Deterministic Water Quality Predictions for Arsenic, Cobalt, Copper, Nickel, Antimony and Sulfate at PM-13 (Embarrass River) as a Function of Tailings Basin - Proposed Action Development



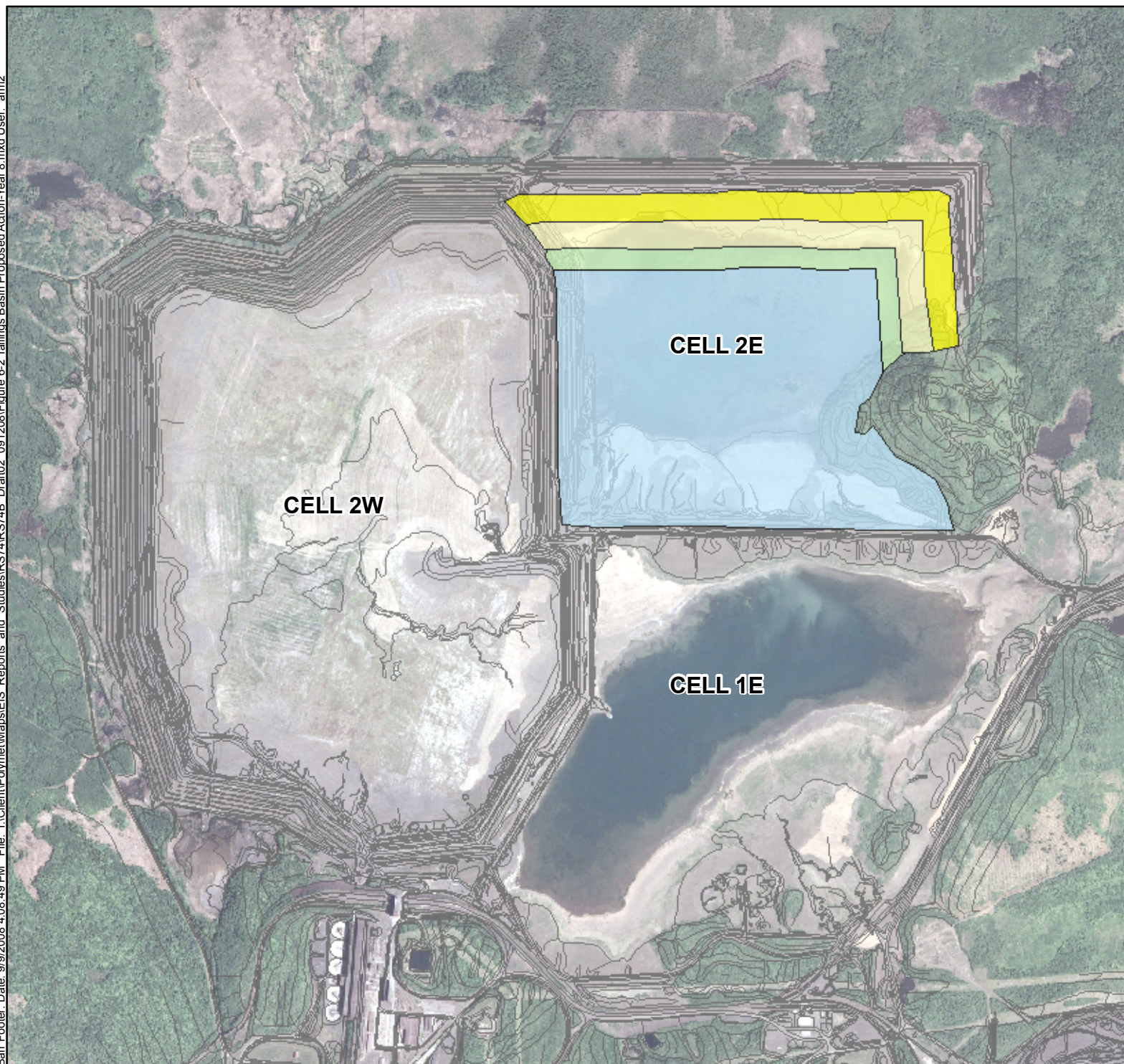


- Coarse Beach
- Fine Beach
- Pond



2,000 1,000 0 2,000
Feet

Figure 6-1
TAILINGS BASIN
PROPOSED ACTION-YEAR 1
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

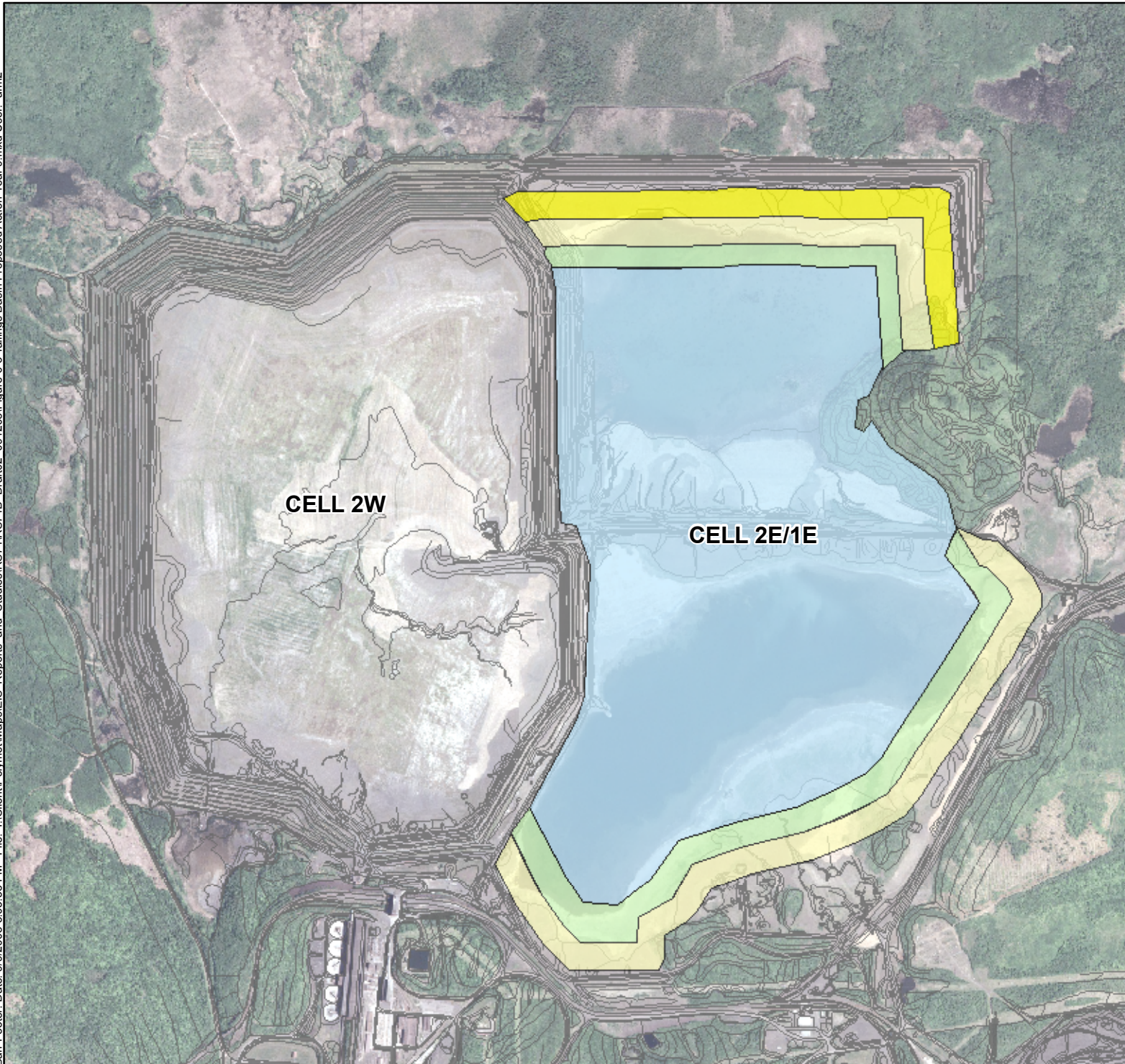


- Embankment
- Coarse Beach
- Fine Beach
- Pond



2,000 1,000 0 2,000
Feet

Figure 6-2
TAILINGS BASIN
PROPOSED ACTION-YEAR 8
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



- Embankment
- Coarse Beach
- Fine Beach
- Pond

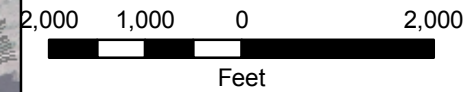
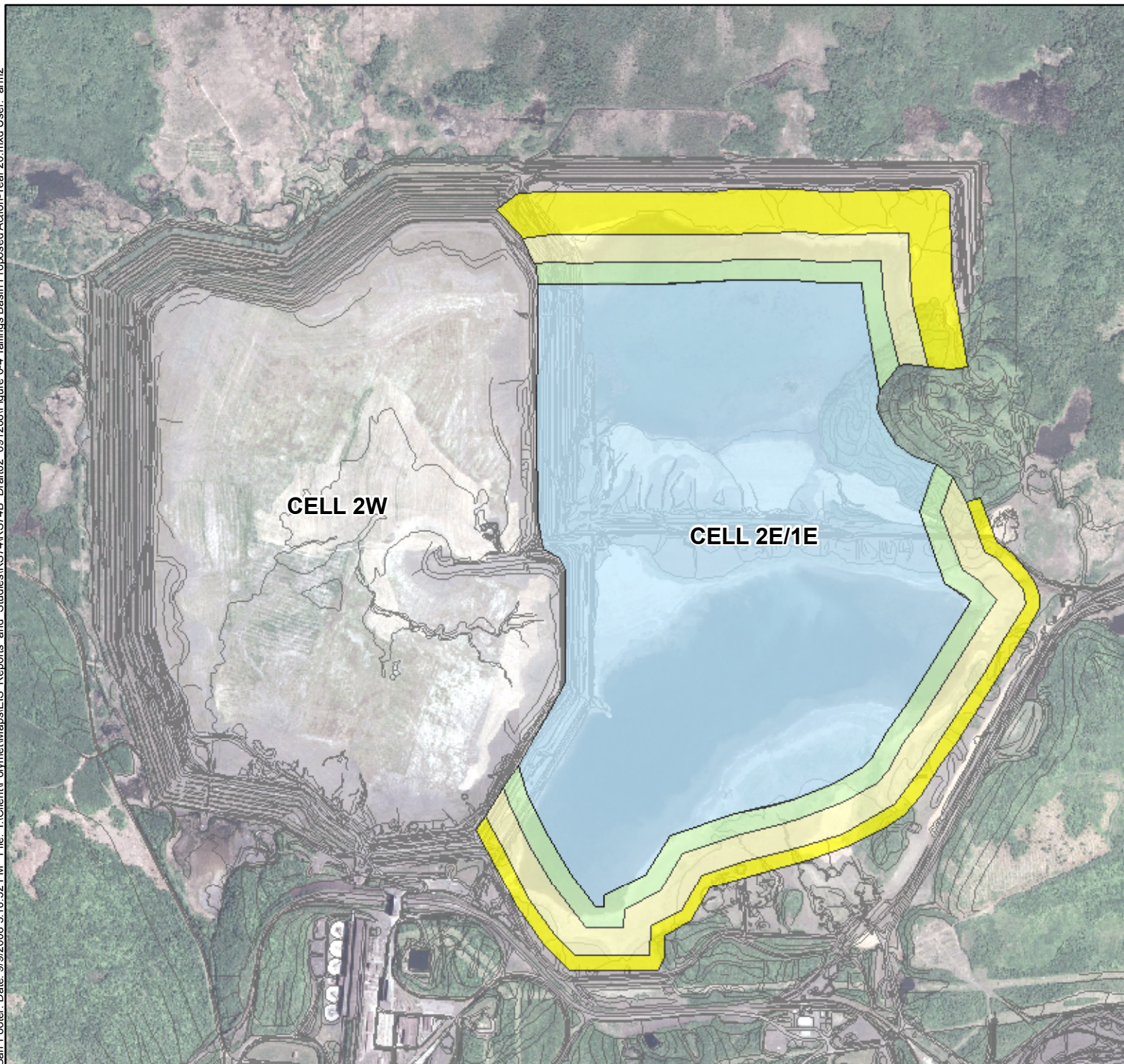


Figure 6-3
TAILINGS BASIN
PROPOSED ACTION-YEAR 9
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



- Embankment
- Coarse Beach
- Fine Beach
- Pond

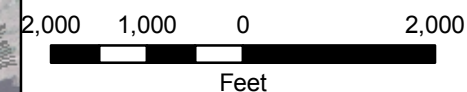


Figure 6-4

TAILINGS BASIN
PROPOSED ACTION-YEAR 20
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

Figure 6-5
Year 1 Flow Conditions - Cell 2E
Proposed Action

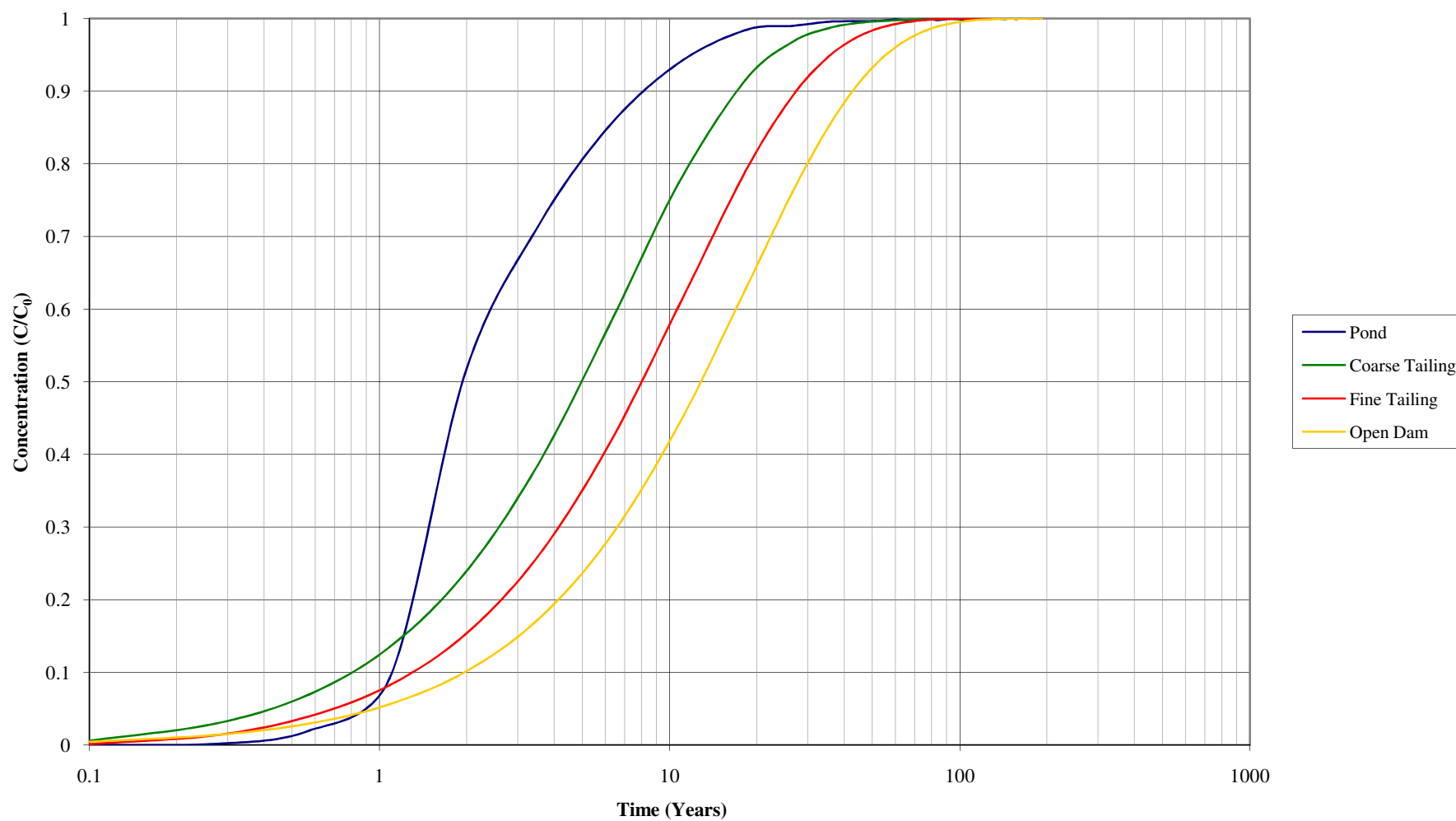


Figure 6-6
Year 8 Flow Conditions - Cell 2E
Proposed Action

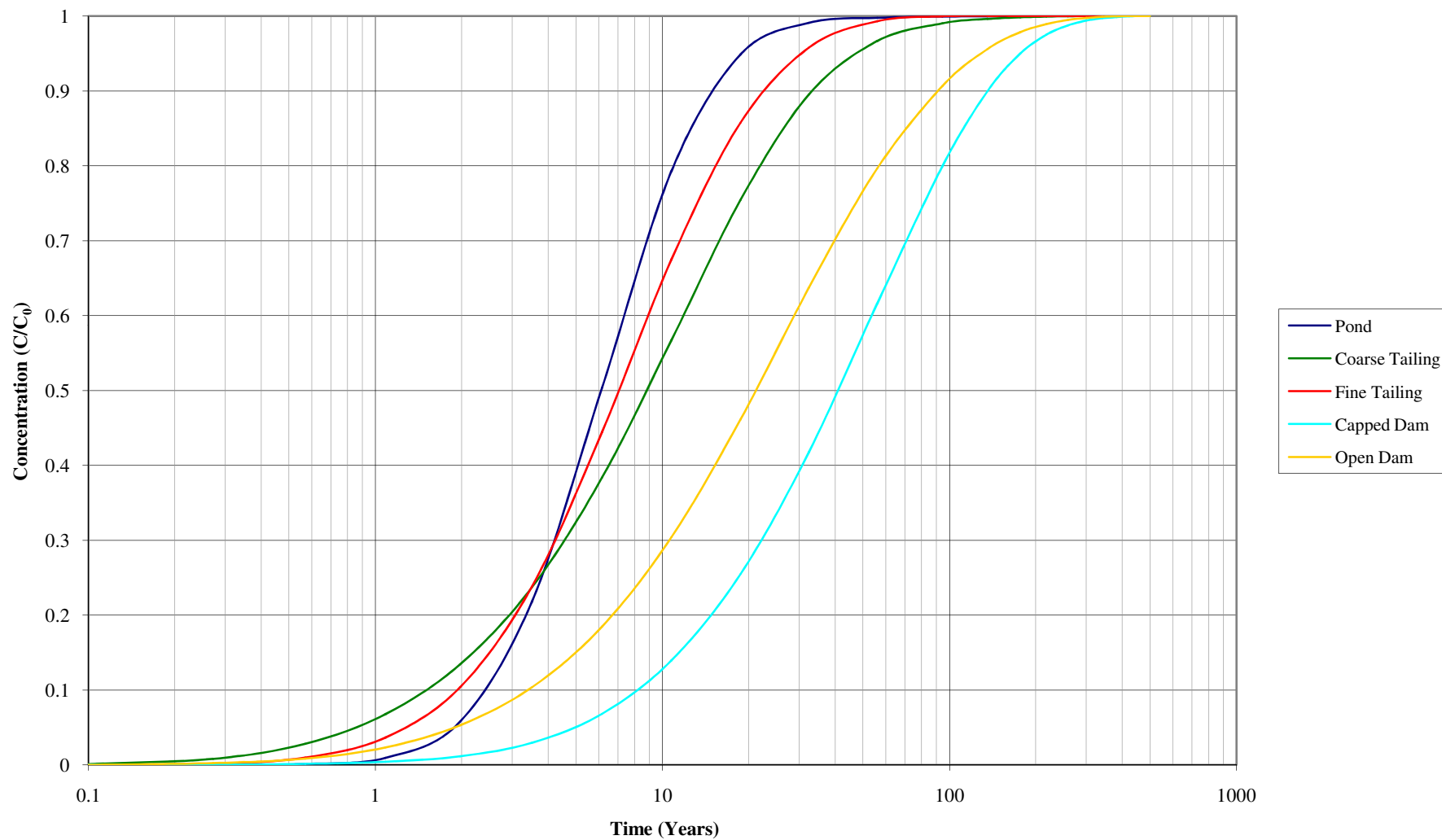


Figure 6-7
Year 9 Flow Conditions - Cell 2E
Proposed Action

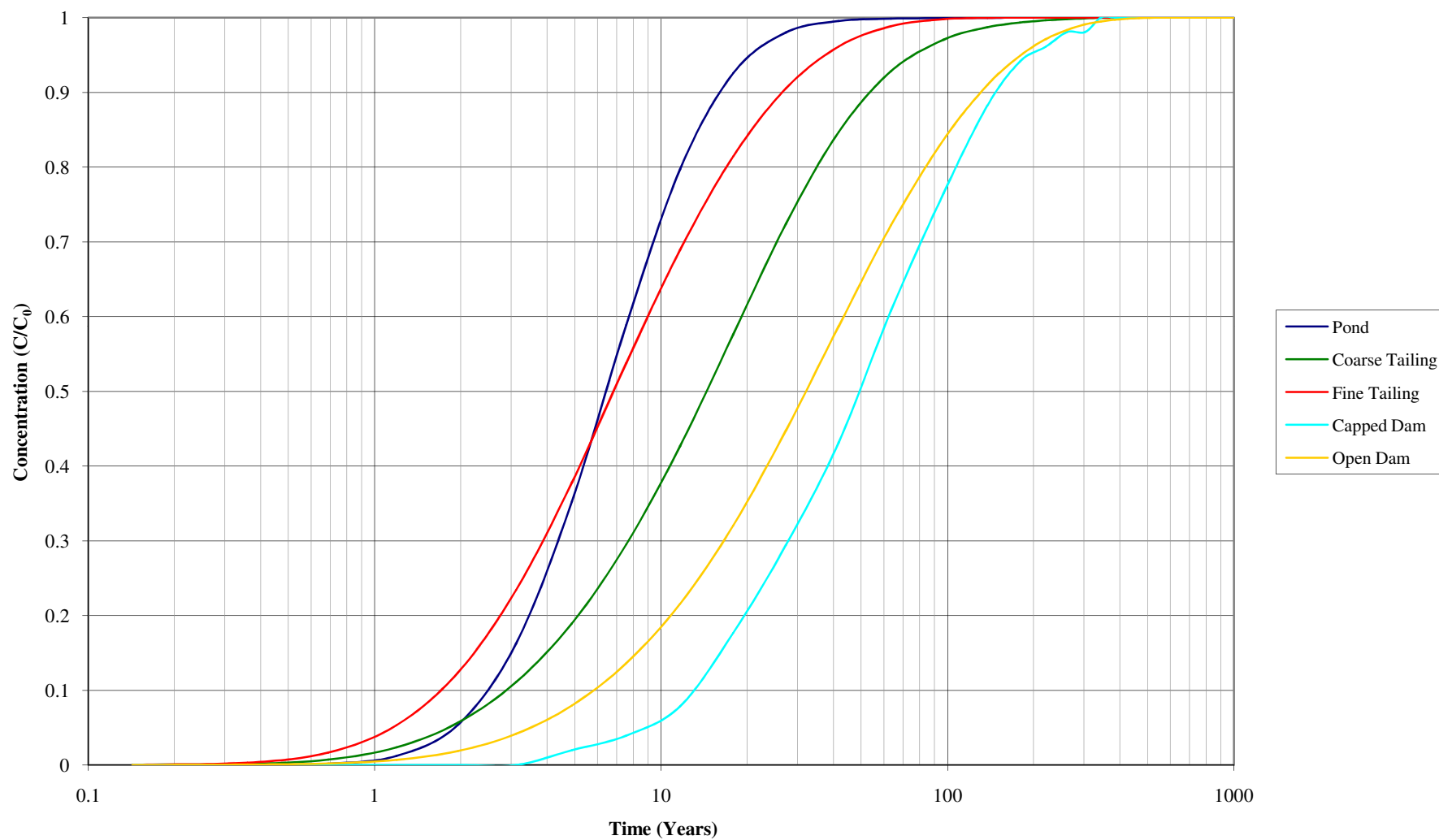


Figure 6-8
Year 20 Flow Conditions - Cell 2E
Proposed Action

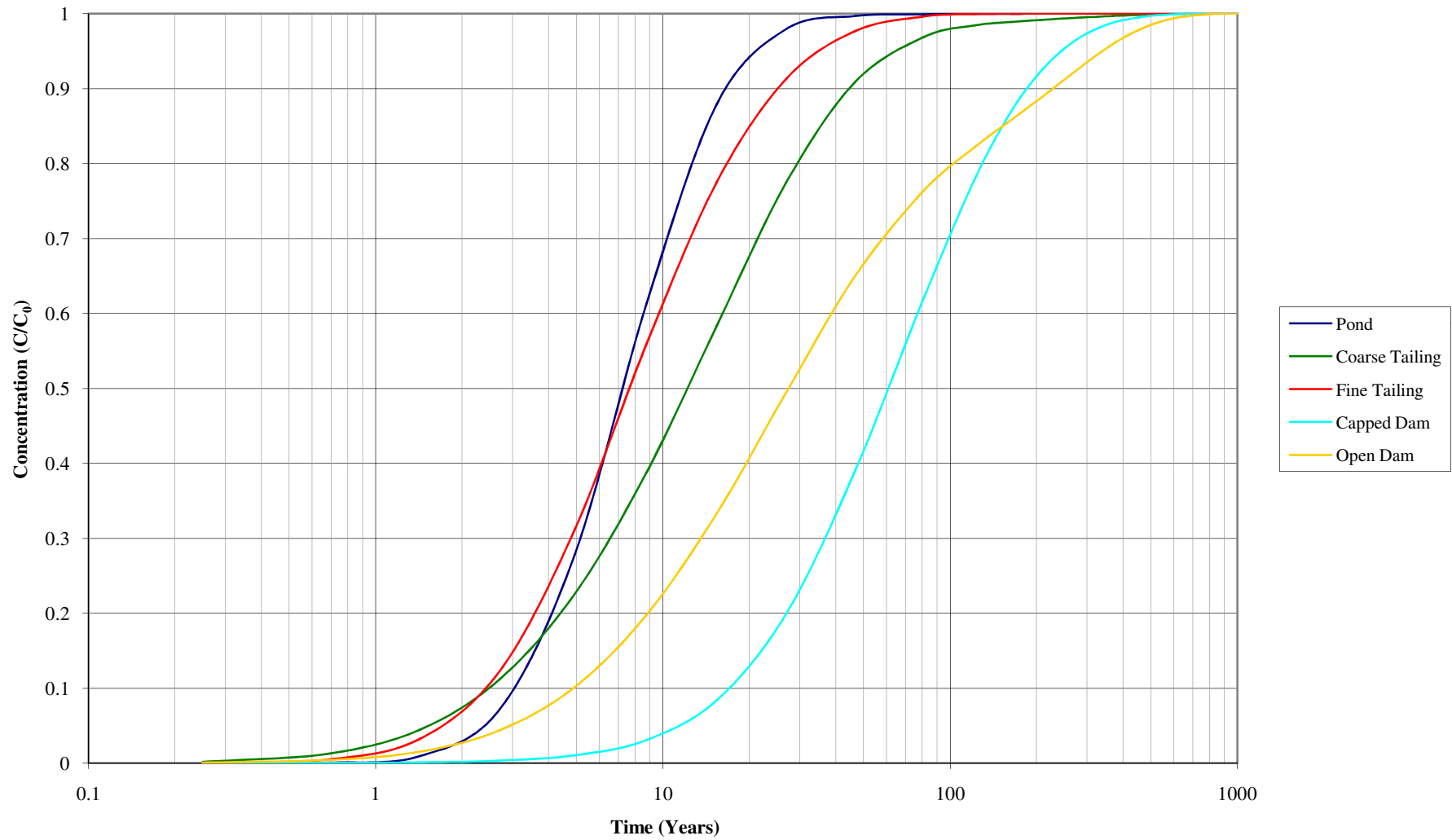


Figure 6-9
Closure Flow Conditions - Cell 2E
Proposed Action

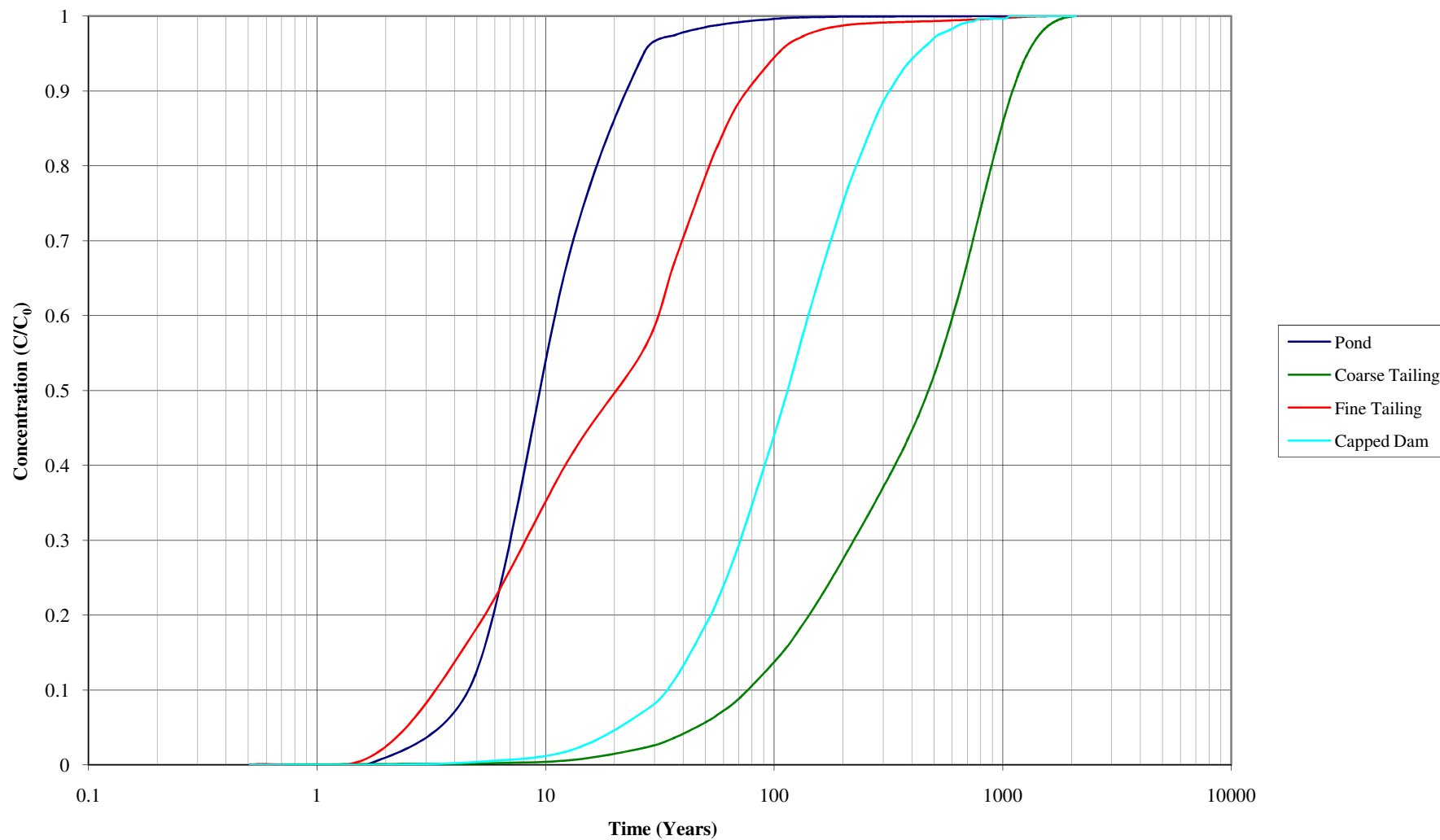


Figure 6-10
Year 9 Flow Conditions - Cell 1E
Proposed Action

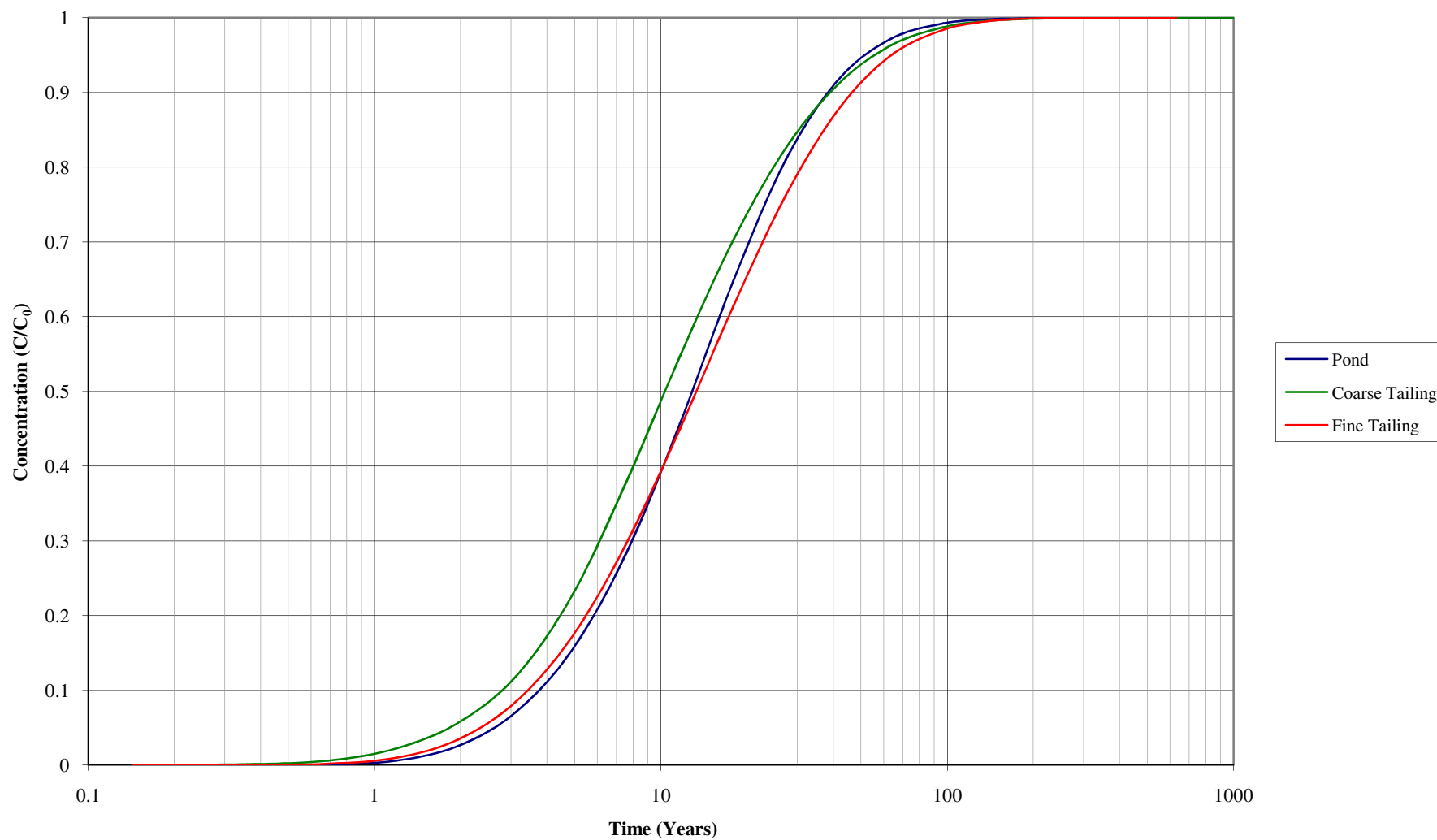


Figure 6-11
Year 20 Flow Conditions - Cell 1E
Proposed Action

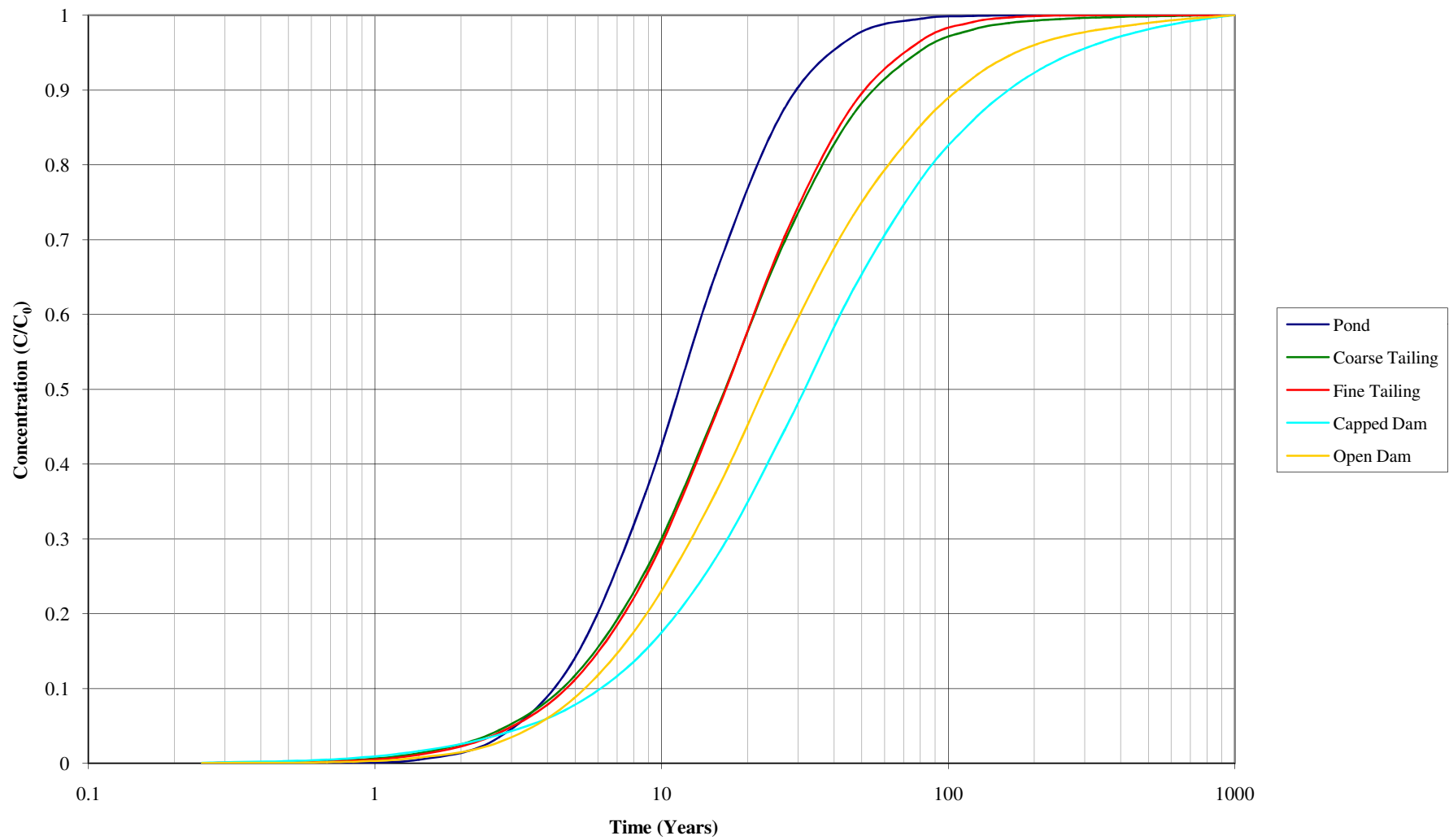


Figure 6-12
Closure Flow Conditions - Cell 1E
Proposed Action

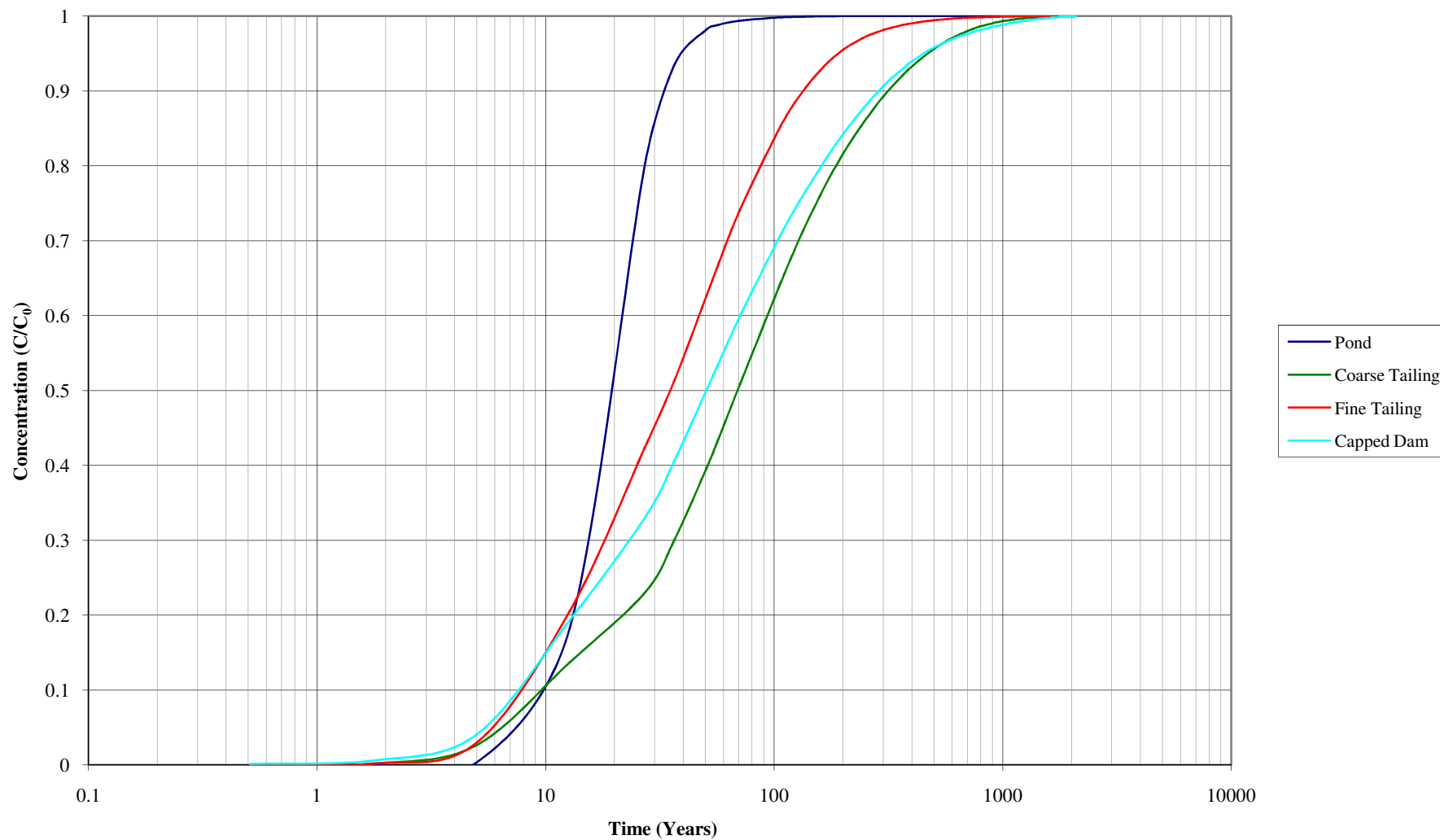


Figure 6-13
Open Embankment Seepage - Cell 2E
Proposed Action

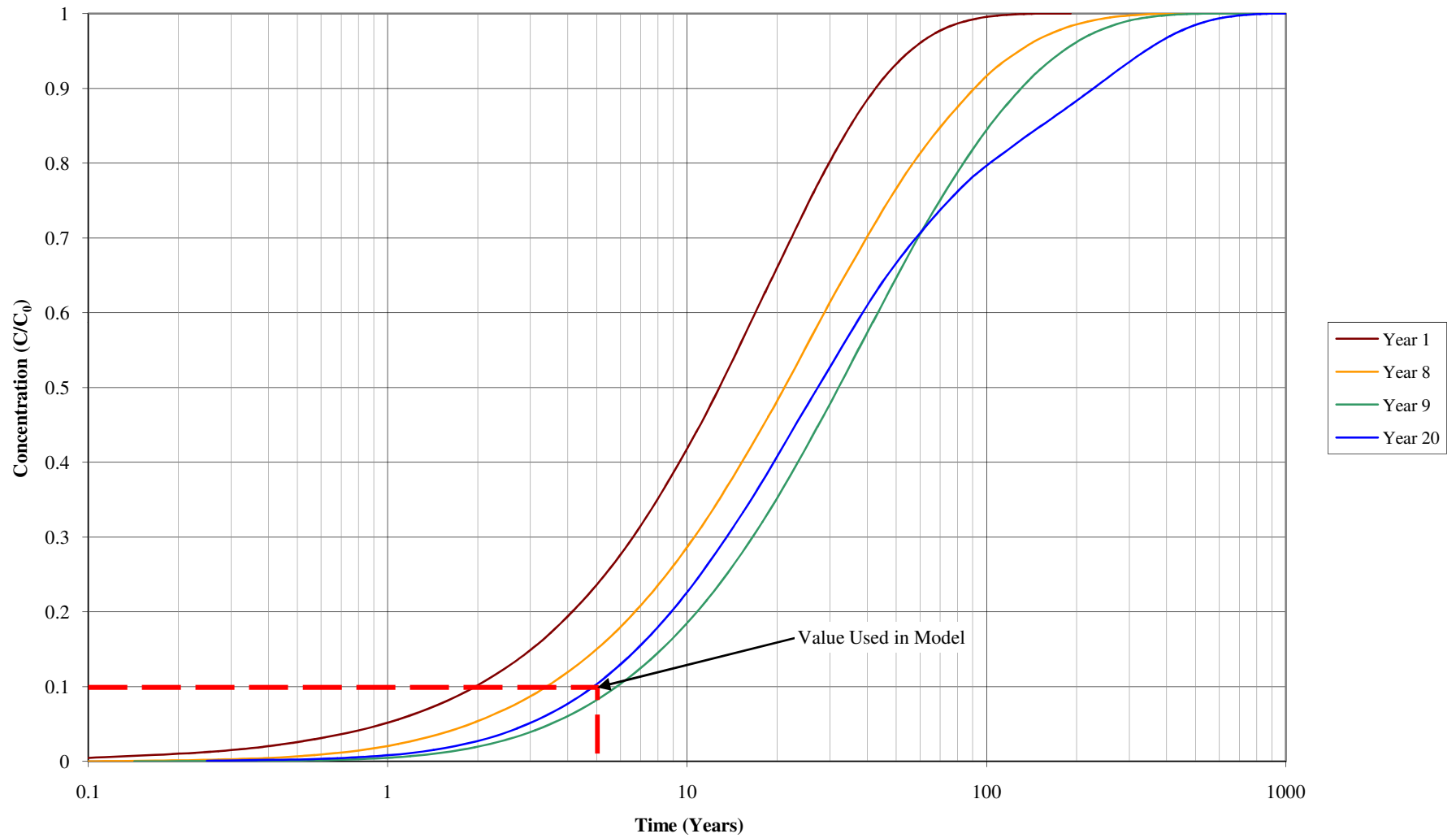


Figure 6-14
Fine Beach Seepage - Cell 2E
Proposed Action

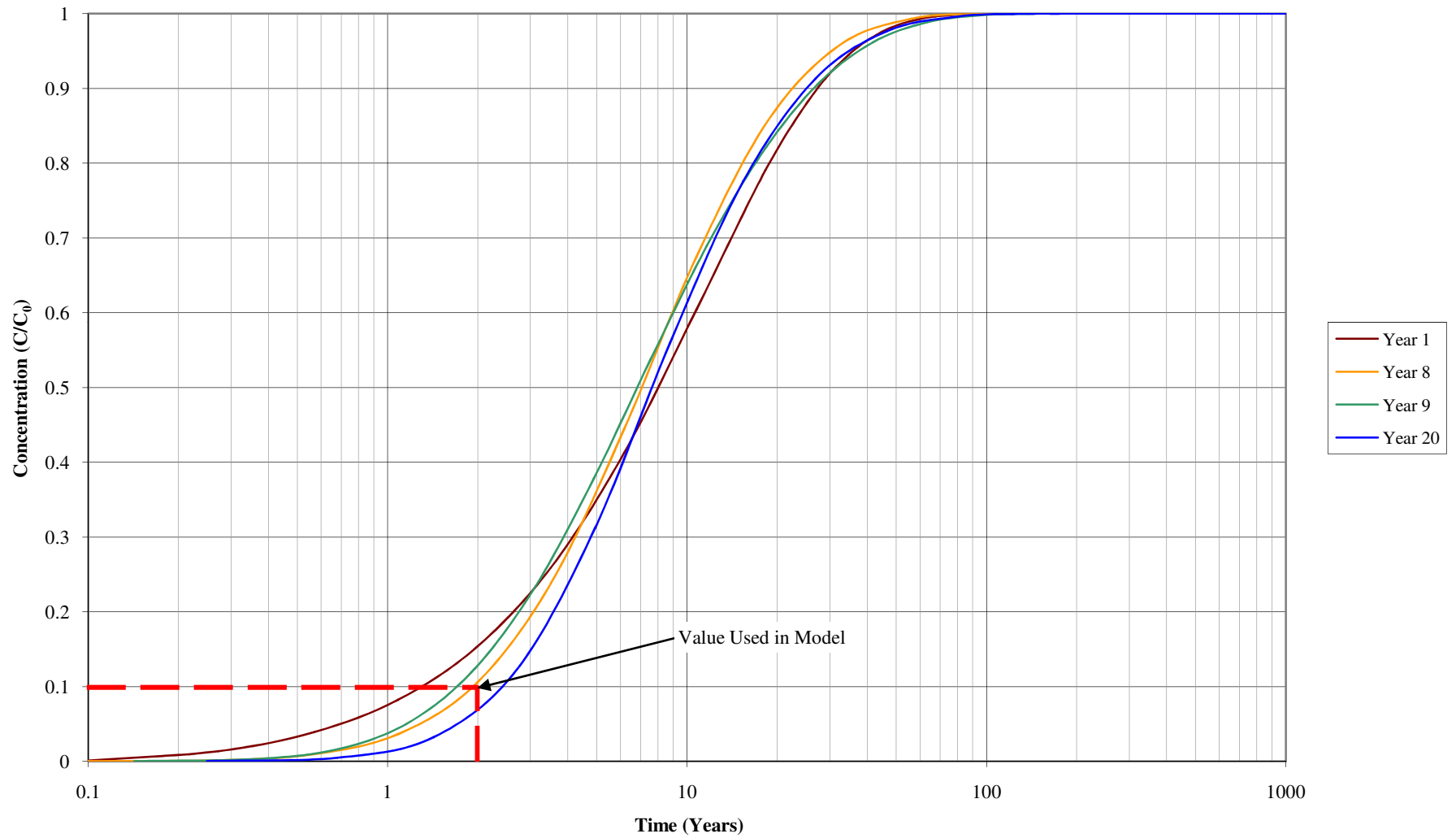


Figure 6-15
Coarse Beach Seepage - Cell 2E
Proposed Action

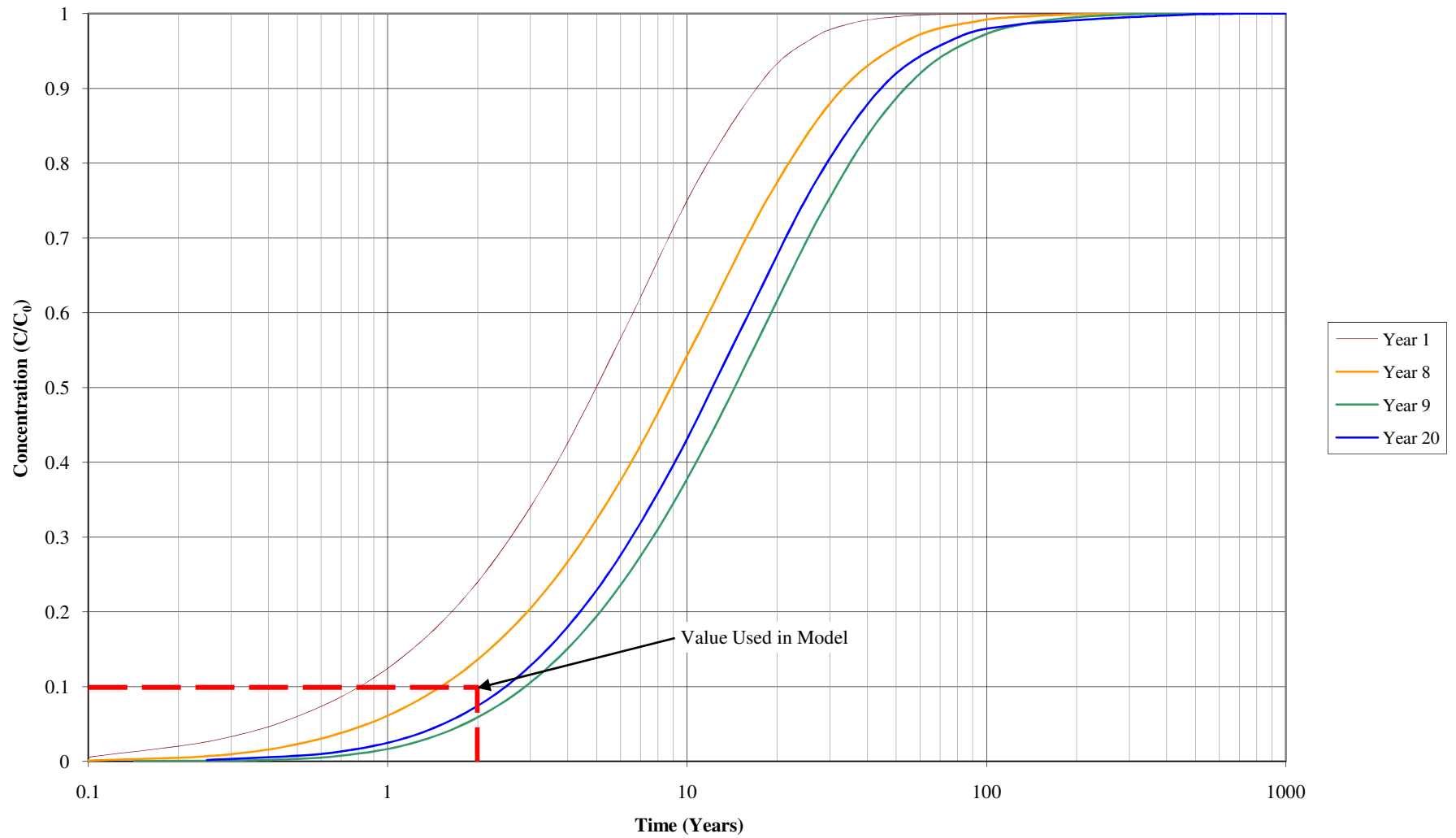


Figure 6-16
Pond Seepage - Cell 2E
Proposed Action

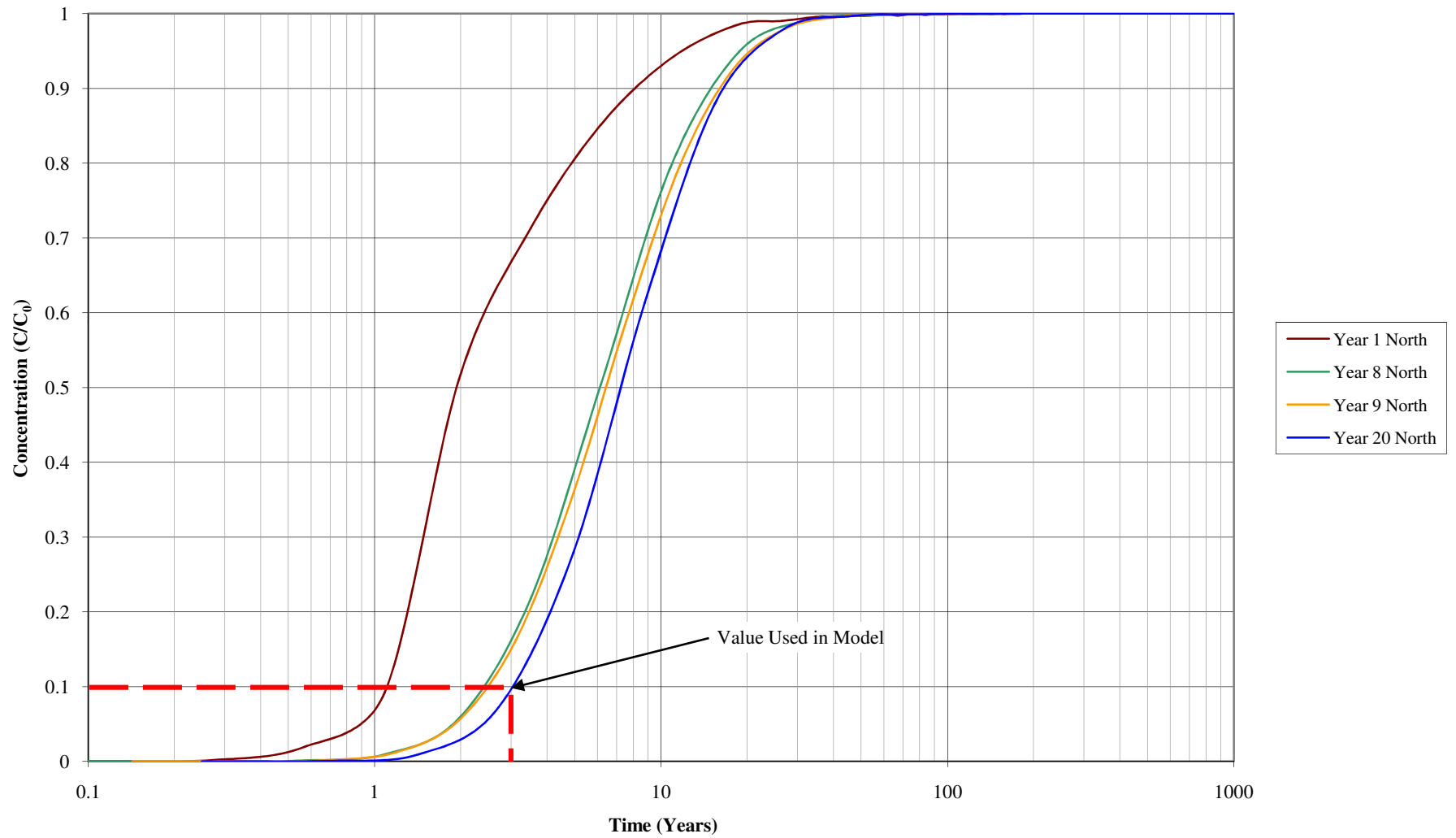


Figure 6-17
Year 1 Flow Conditions - Cell 2E
Proposed Action

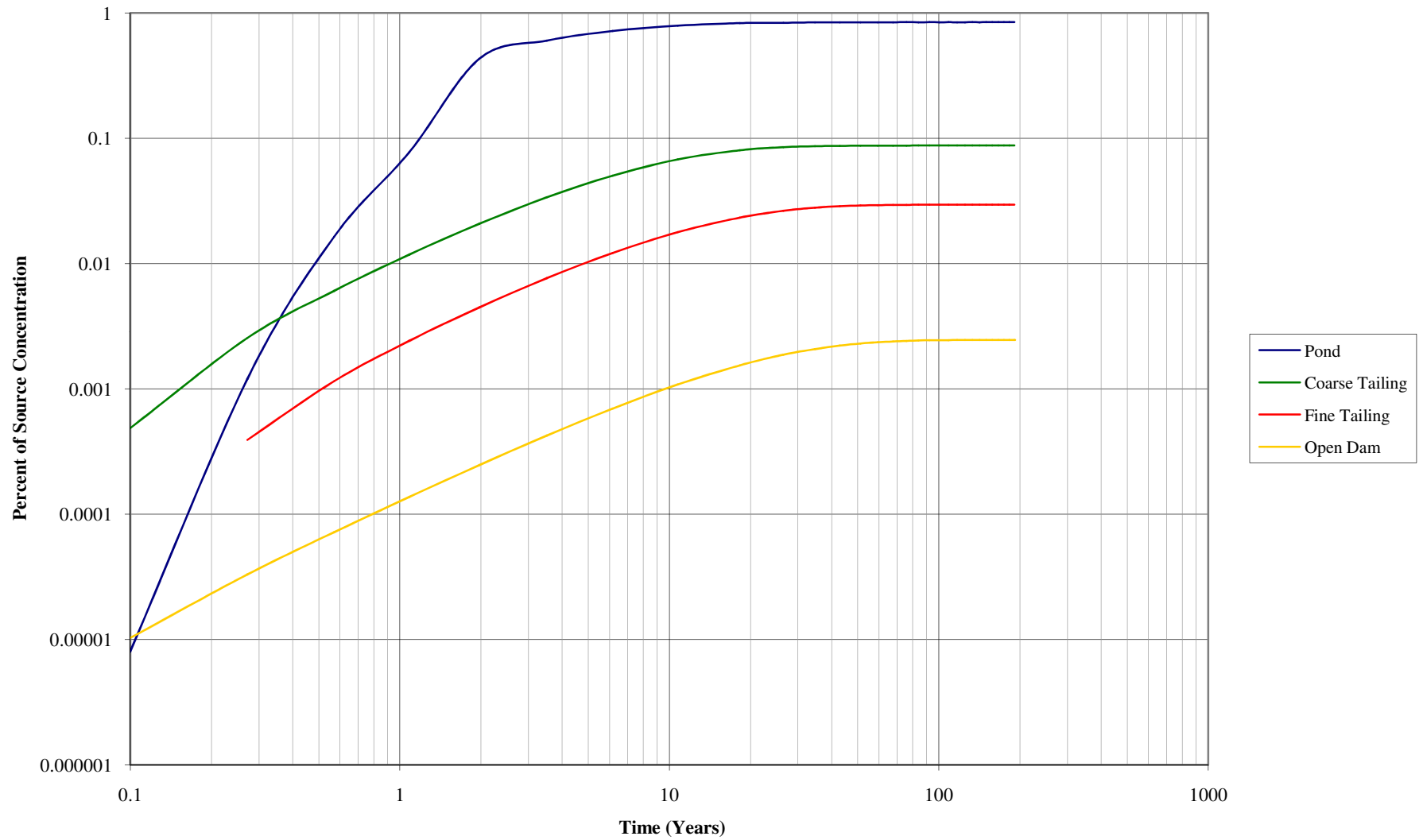


Figure 6-18
Year 8 Flow Conditions - Cell 2E
Proposed Action

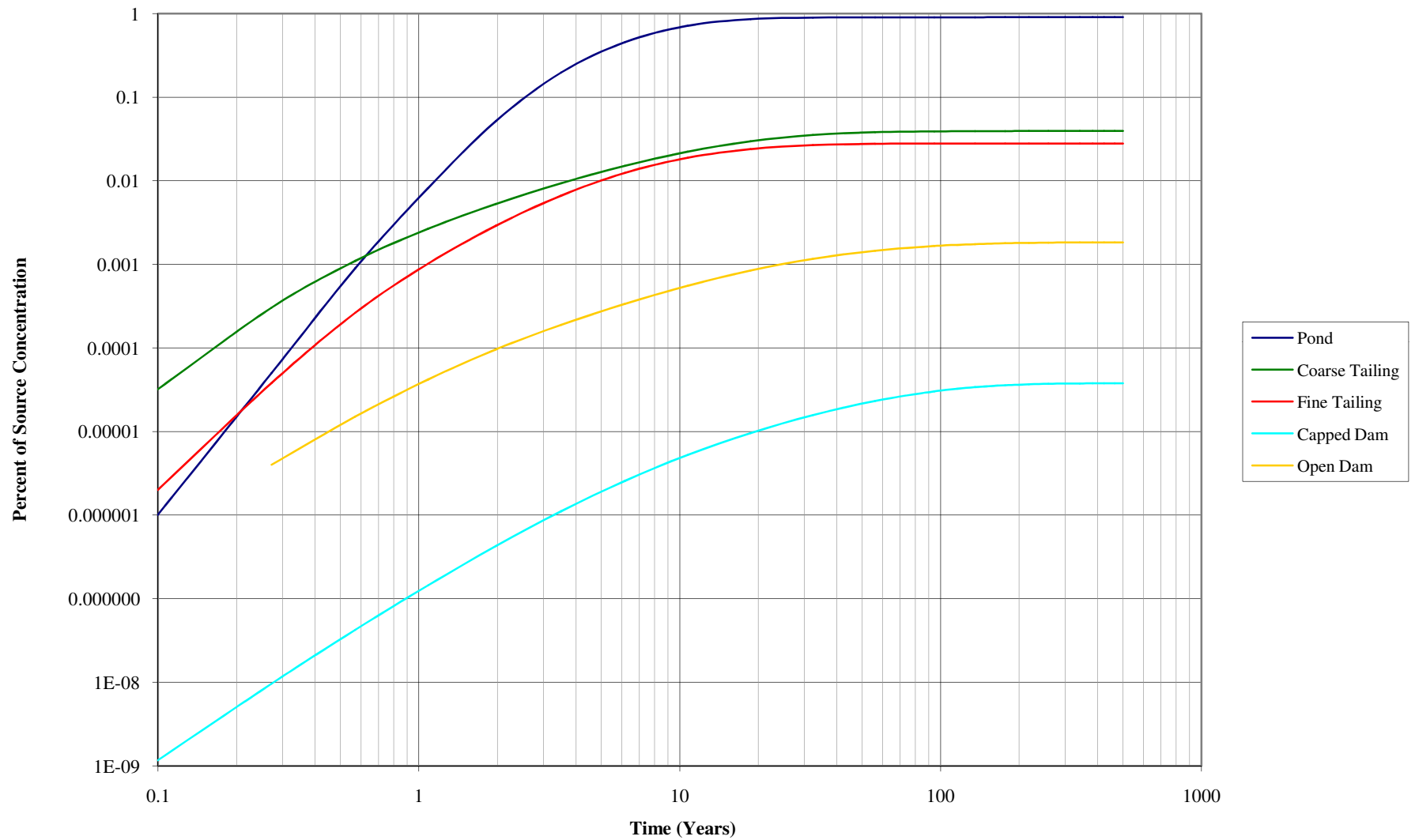


Figure 6-19
Year 20 Flow Conditions - Cell 2E
Proposed Action

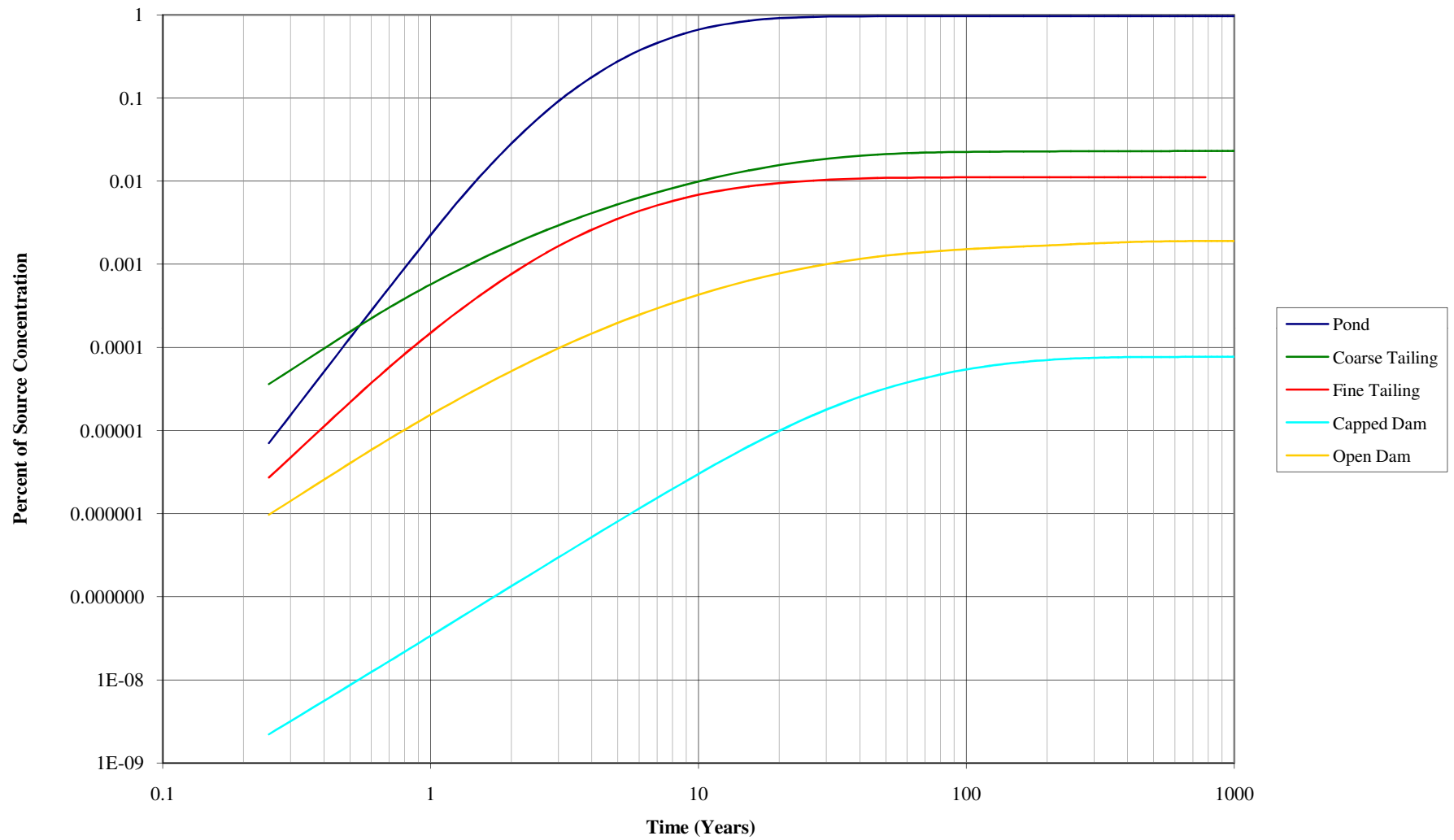


Figure 6-20
Year 20 Flow Conditions - Cell 1E
Proposed Action

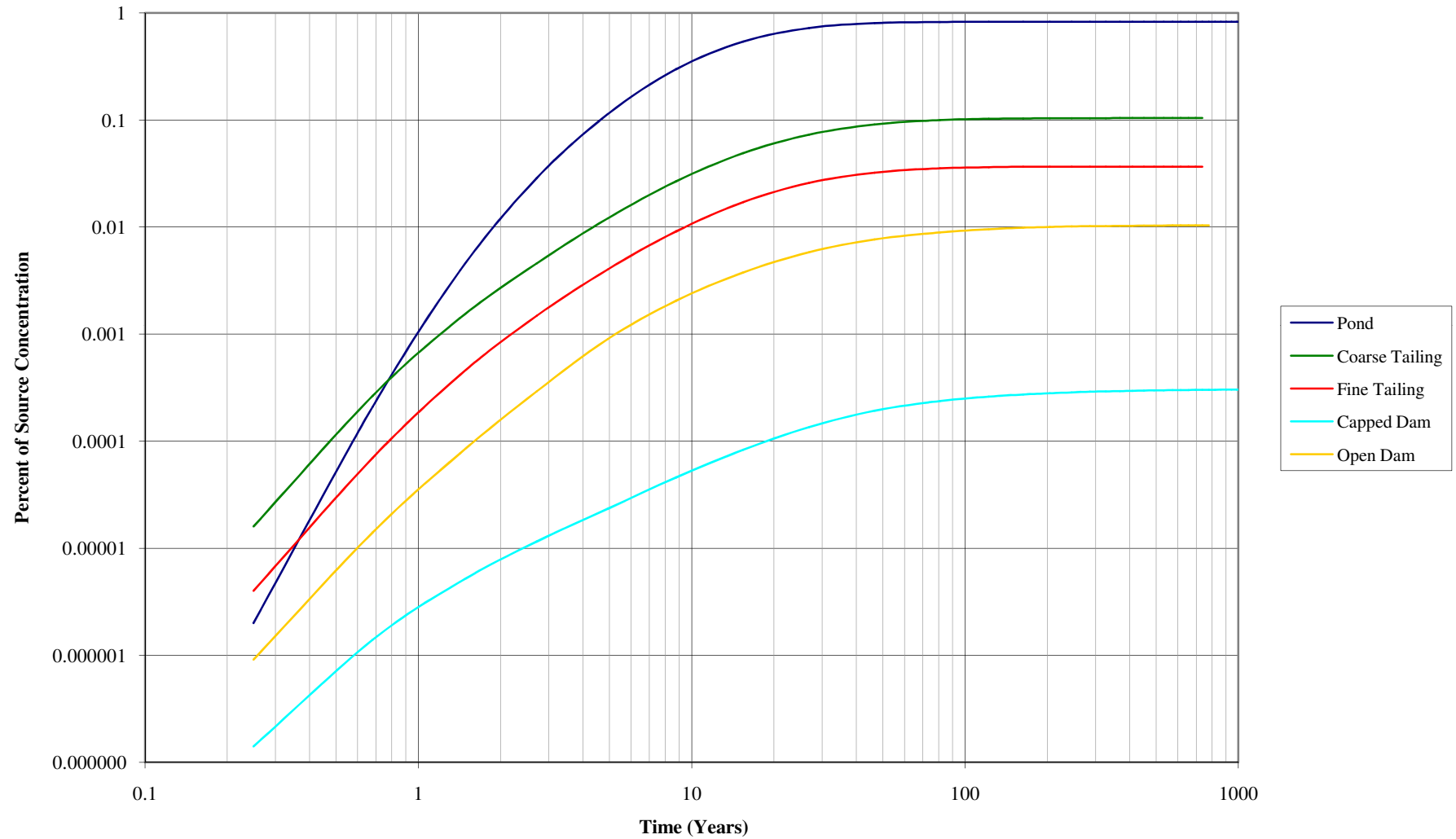


Figure 6-21
Closure Flow Conditions - Cell 2E
Proposed Action

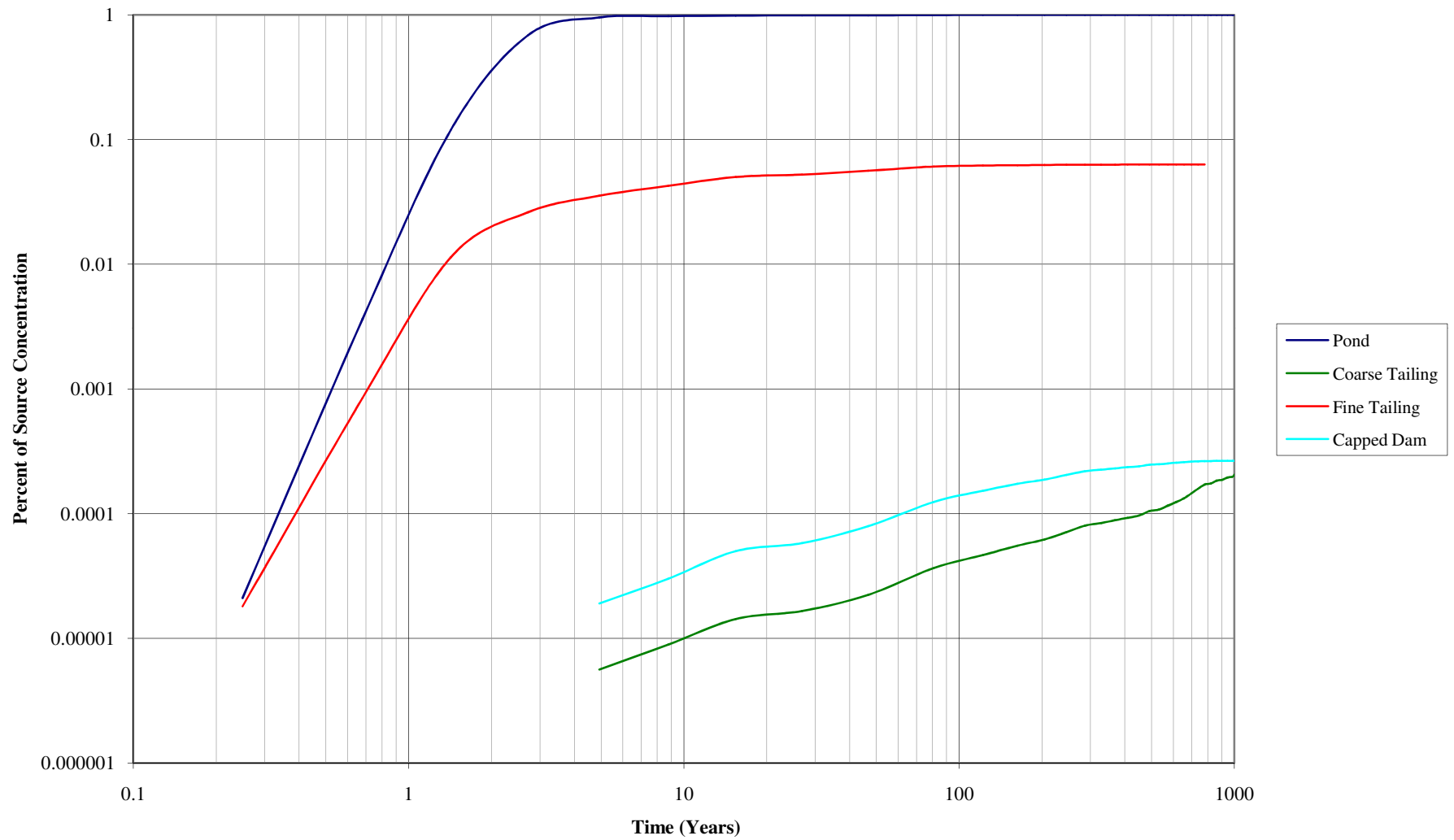


Figure 6-22
Predicted Concentration - Cell 2E
Proposed Action - Sulfate

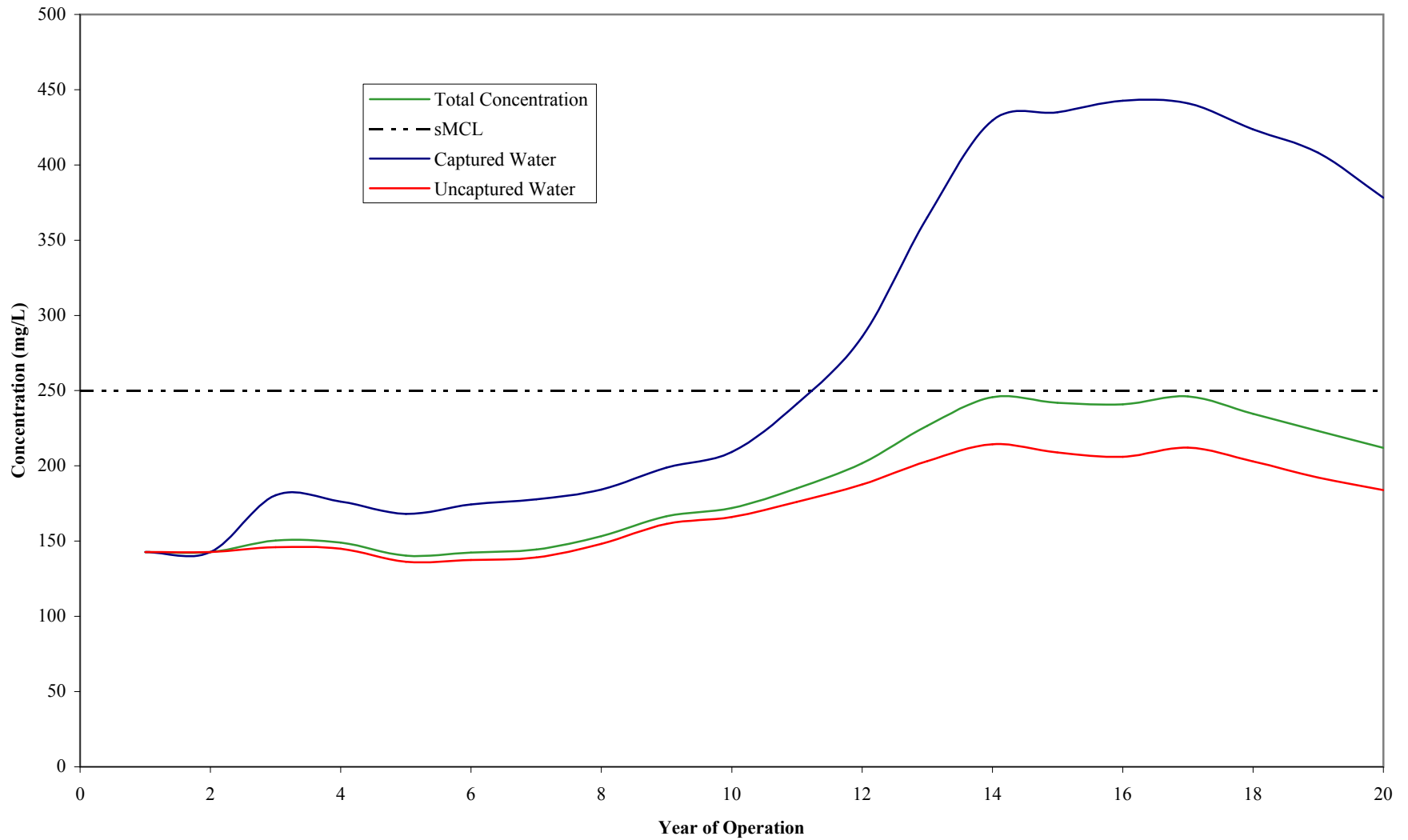


Figure 6-23
Predicted Concentration - Cell 2E
Proposed Action - Silver

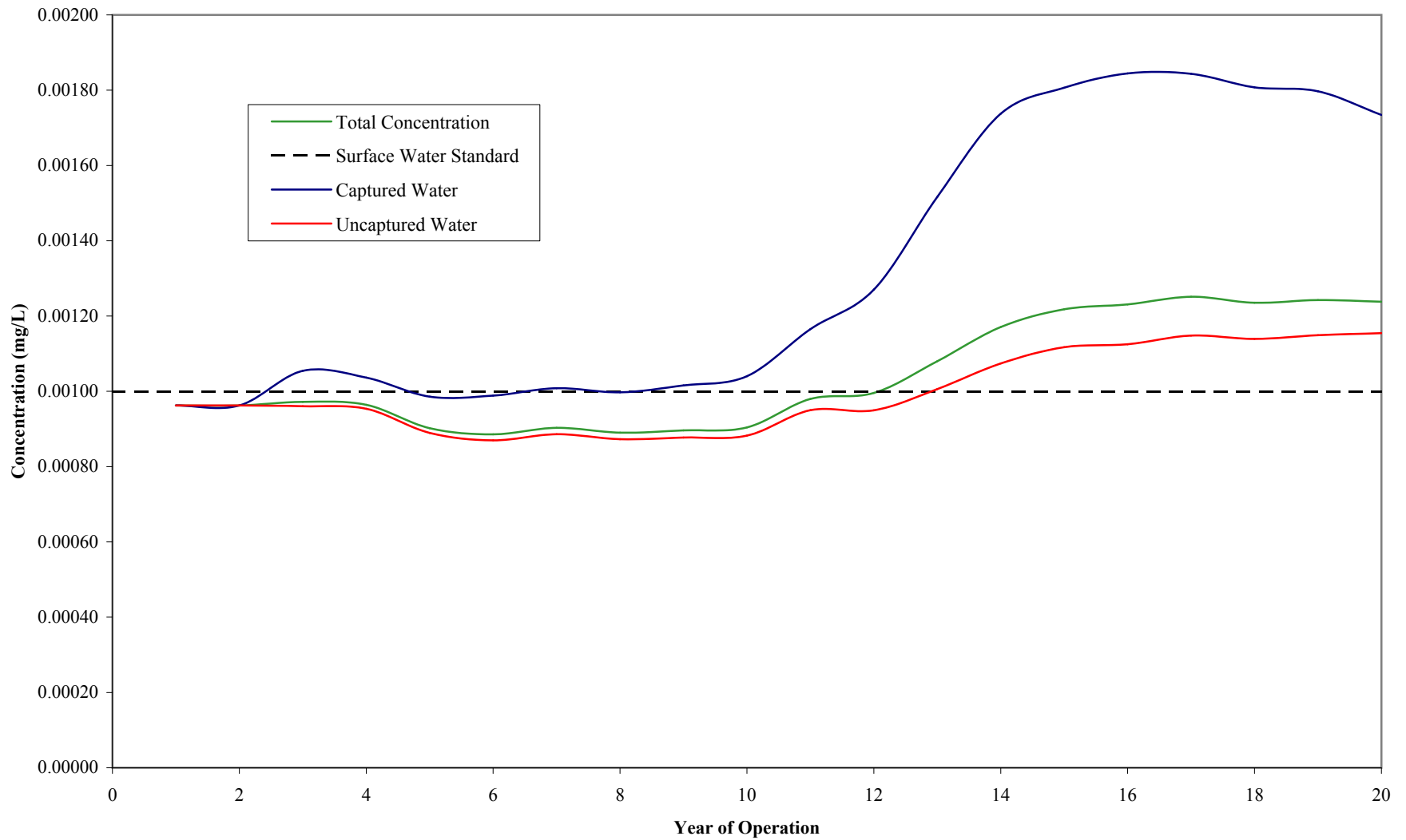


Figure 6-24
Predicted Concentration - Cell 2E
Proposed Action - Antimony

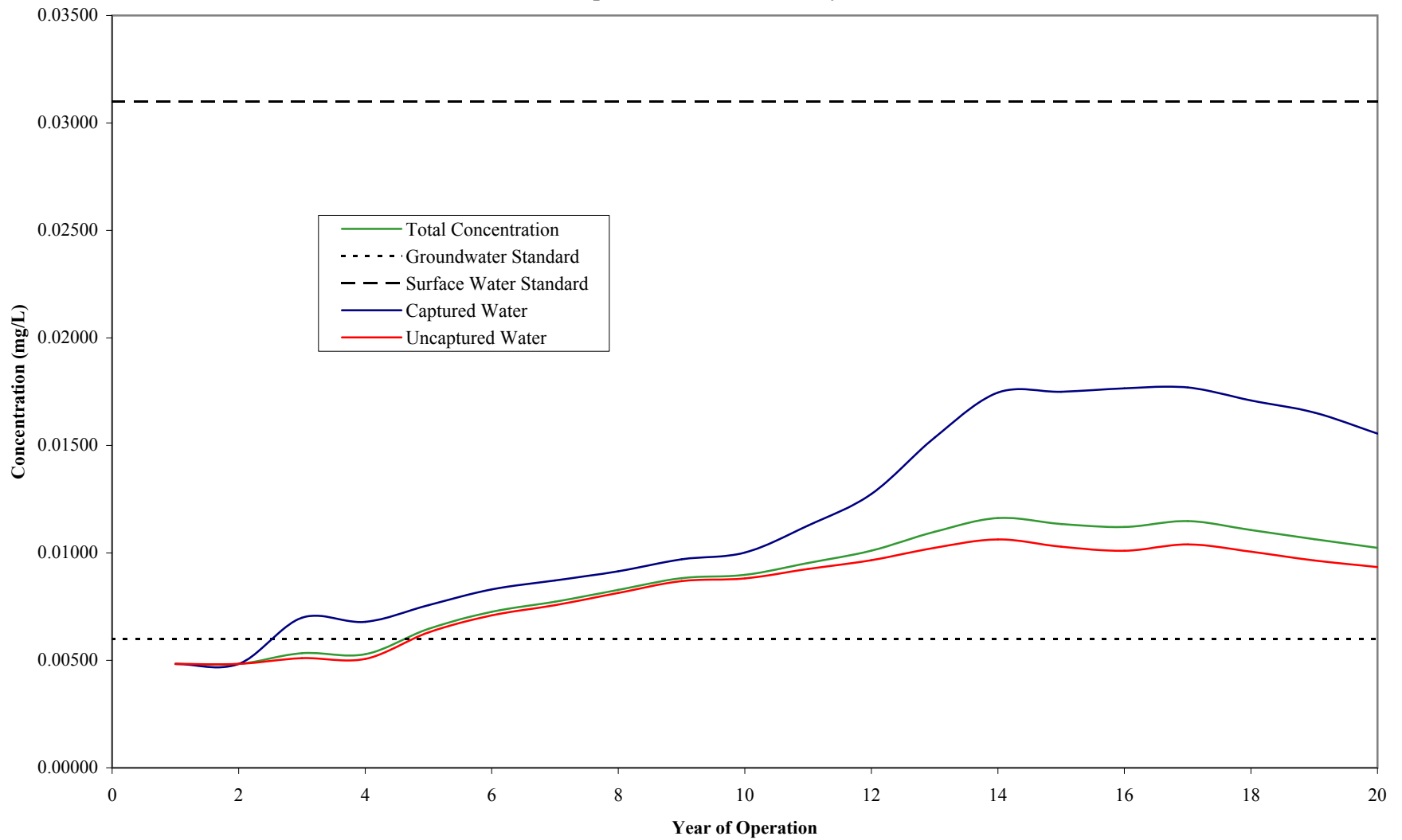


Figure 6-25
Predicted Concentration - Cell 2E
Proposed Action - Arsenic

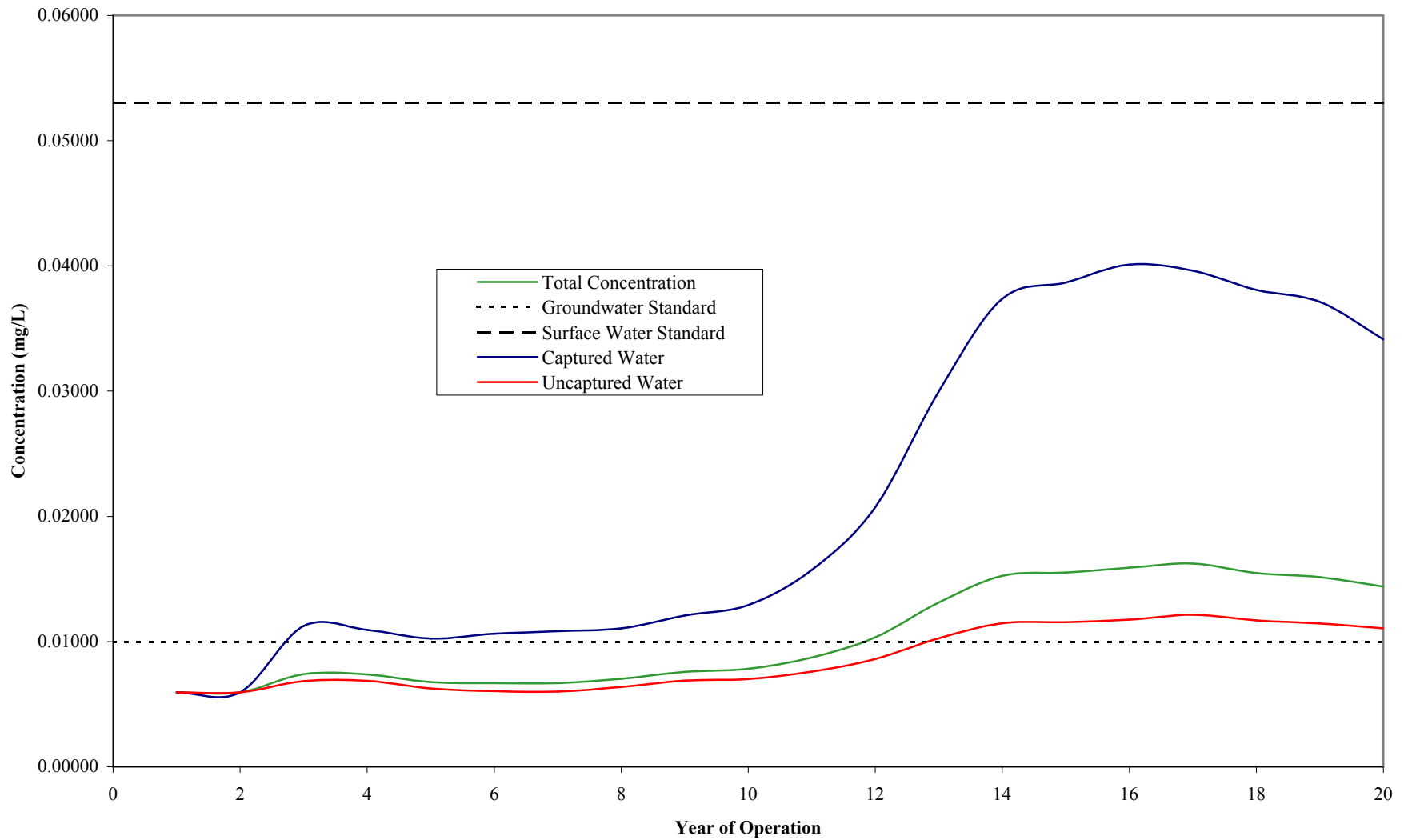


Figure 6-26
Predicted Concentration - Cell 2E
Proposed Action - Cobalt

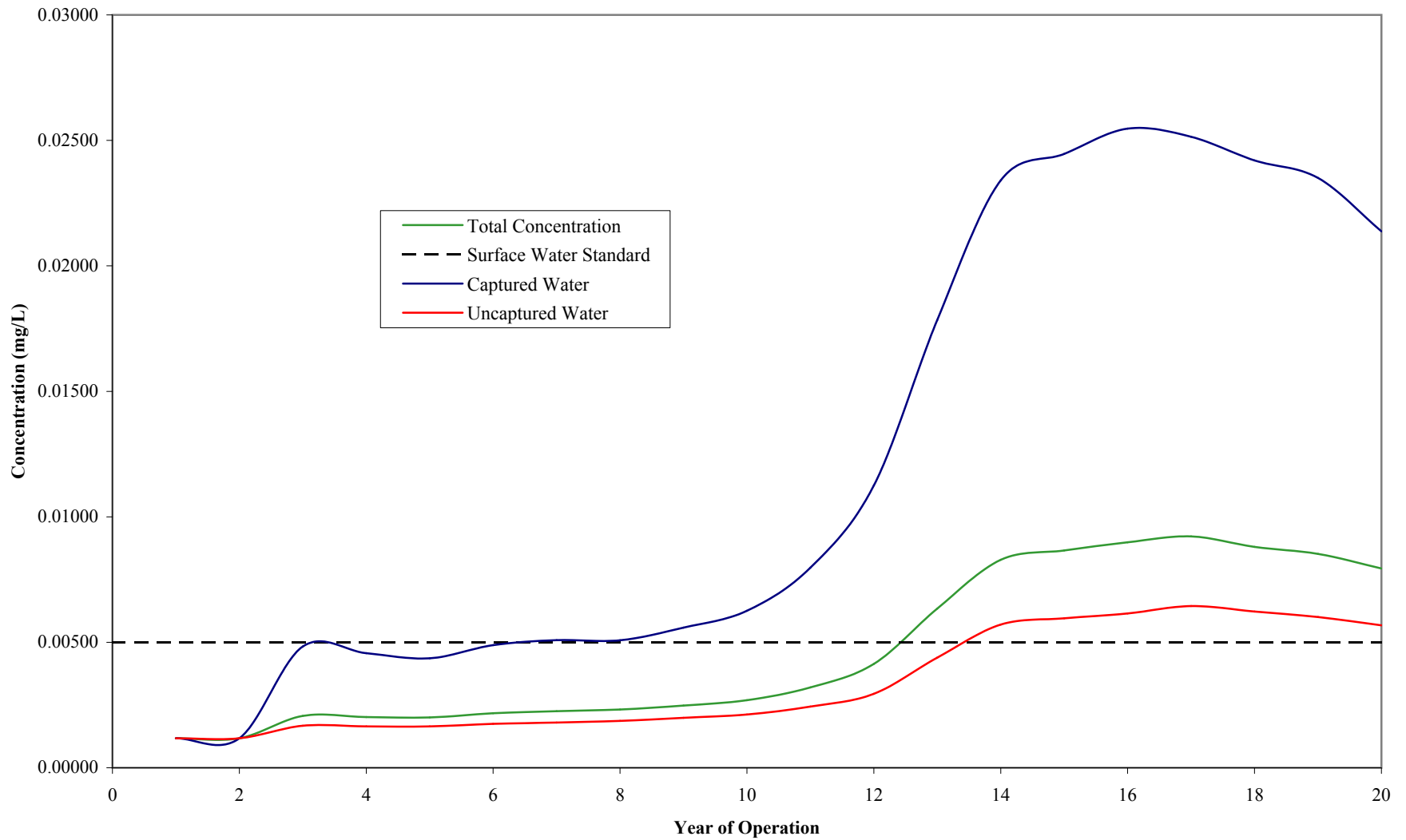


Figure 6-27
Predicted Concentration - Cell 2E
Proposed Action - Copper

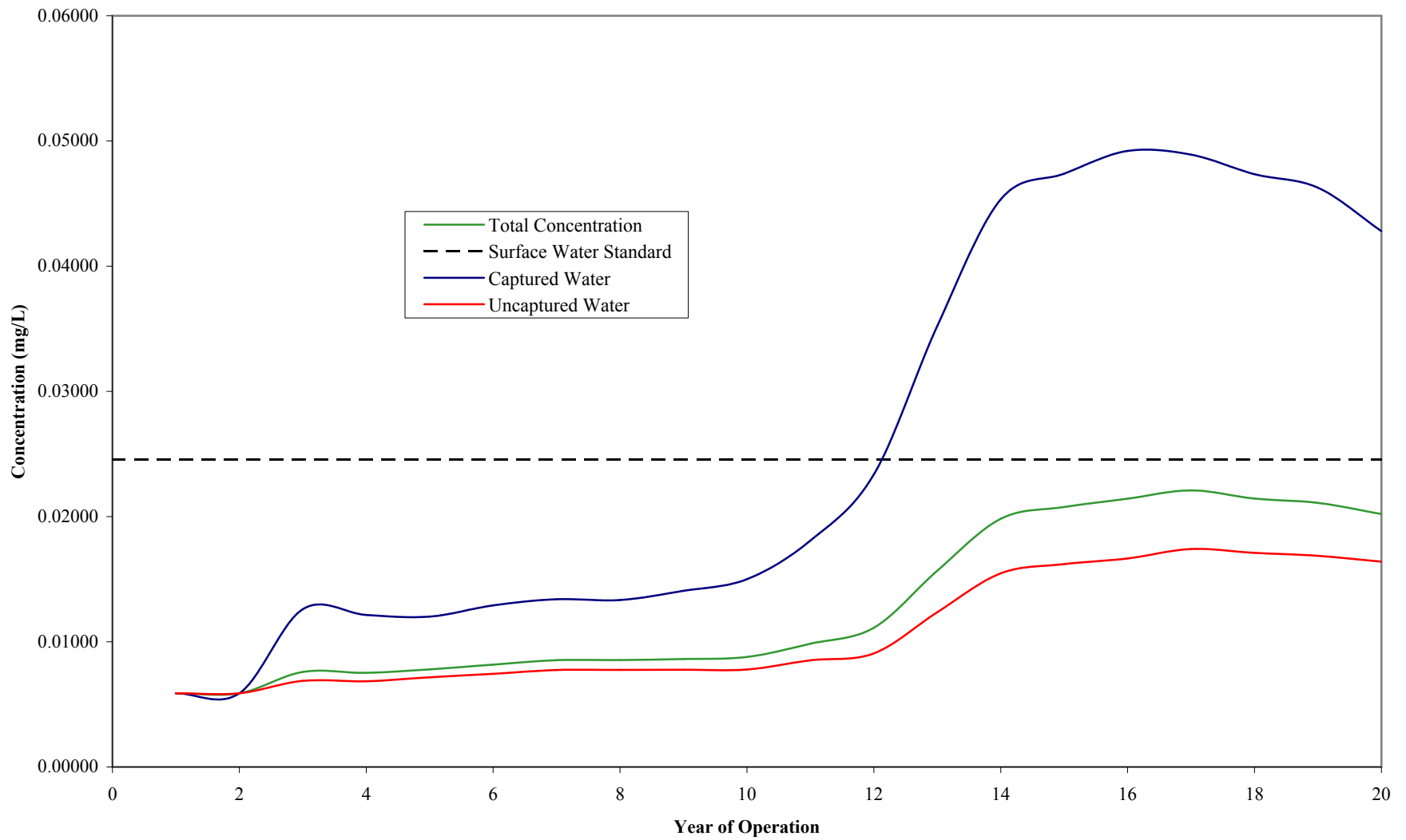


Figure 6-28
Predicted Concentration - Cell 2E
Proposed Action - Nickel

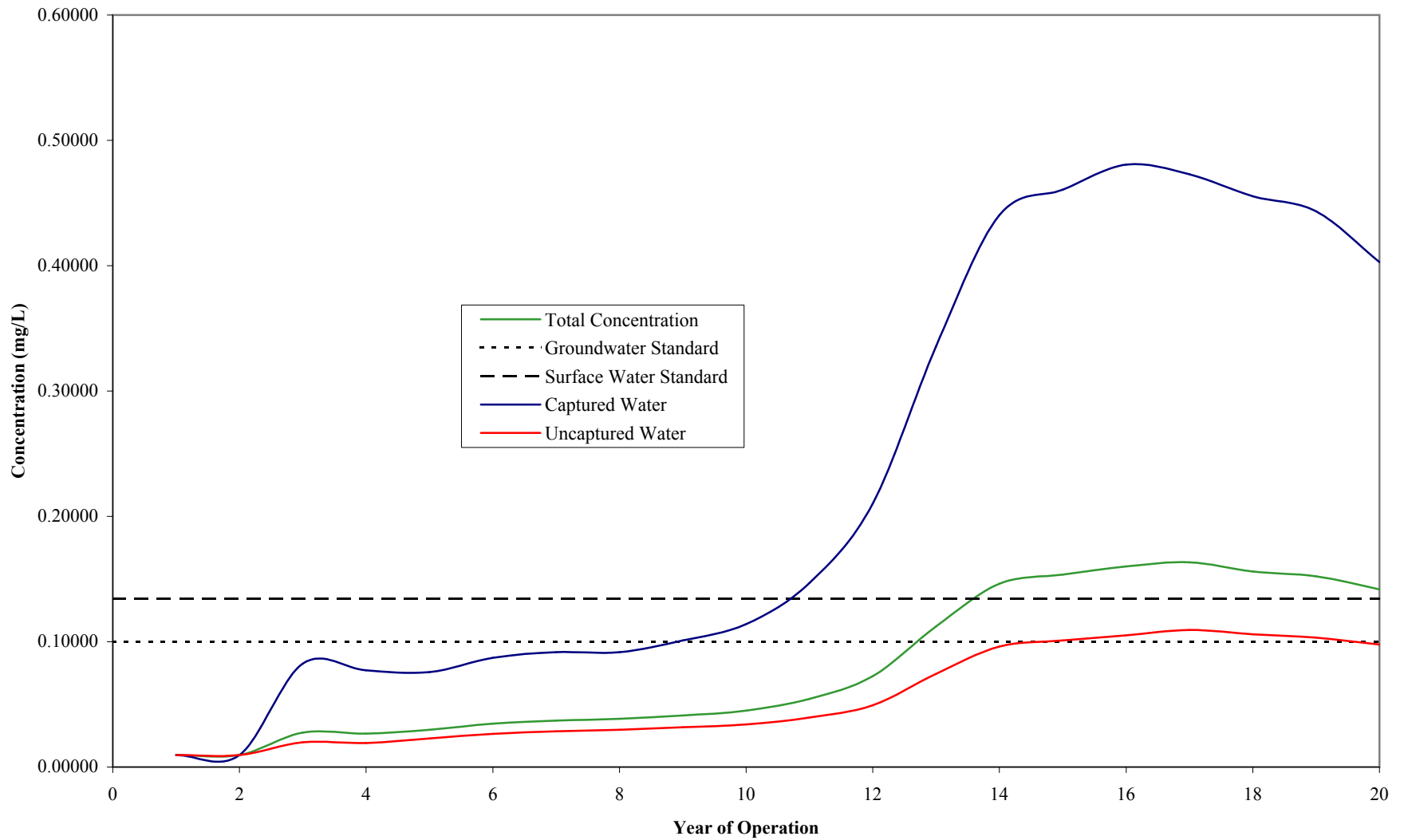


Figure 6-29
Predicted Concentration - Cell 2E
Proposed Action - Zinc

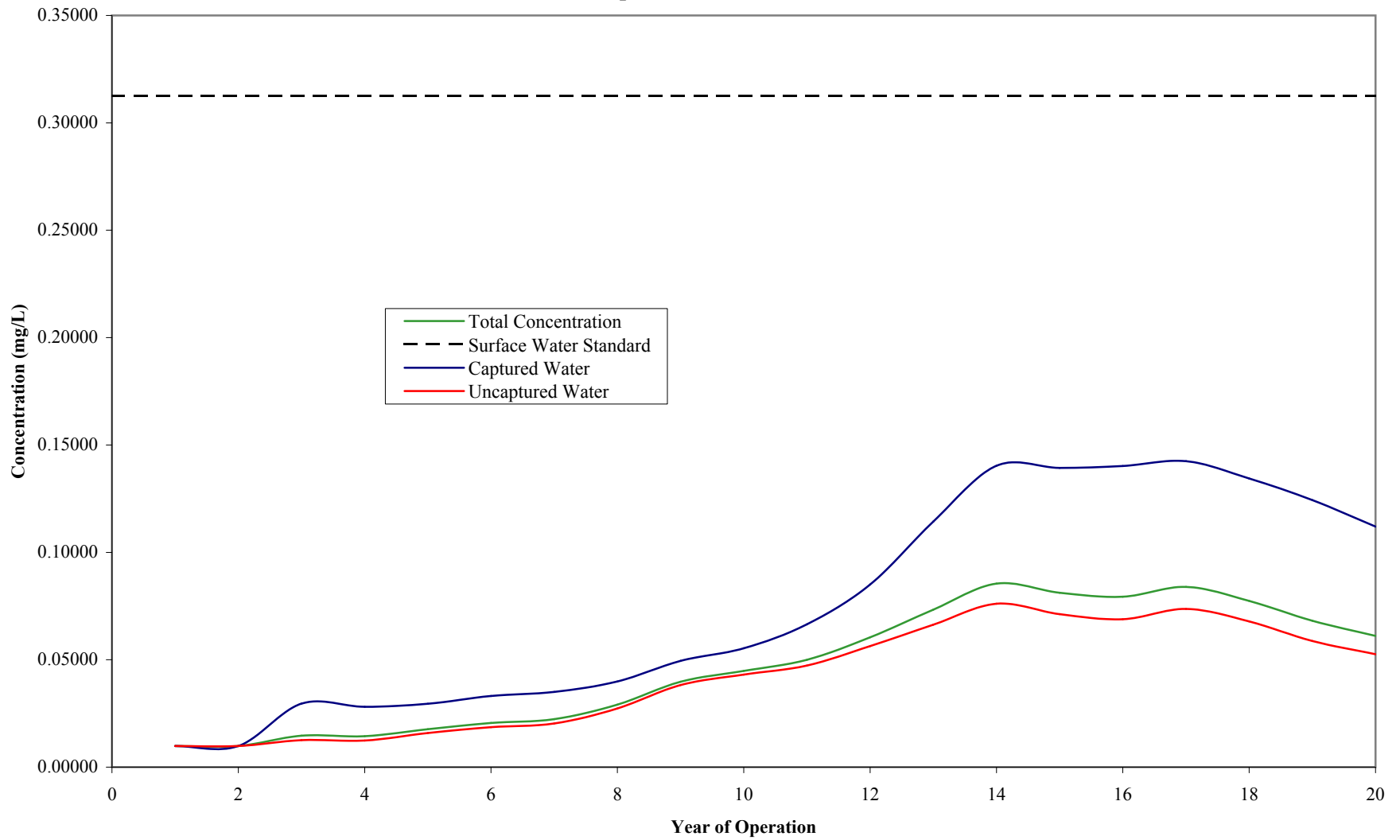


Figure 7-1: Deterministic Water Quality Predictions for Arsenic, Cobalt, Copper, Nickel, Antimony and Sulfate at PM-12 (Embarrass River) as a Function of Tailings Basin - Geotechnical Mitigation Development

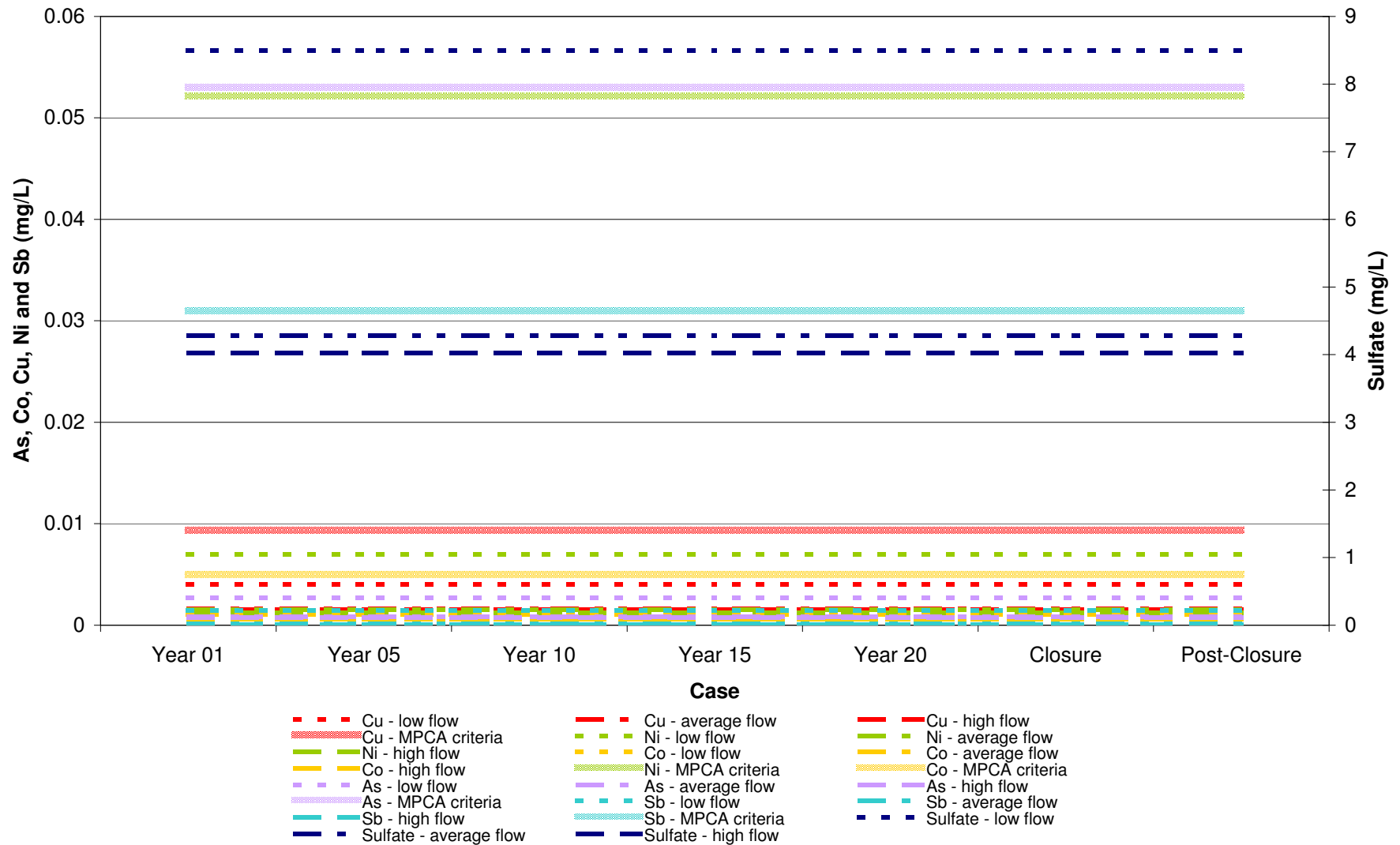
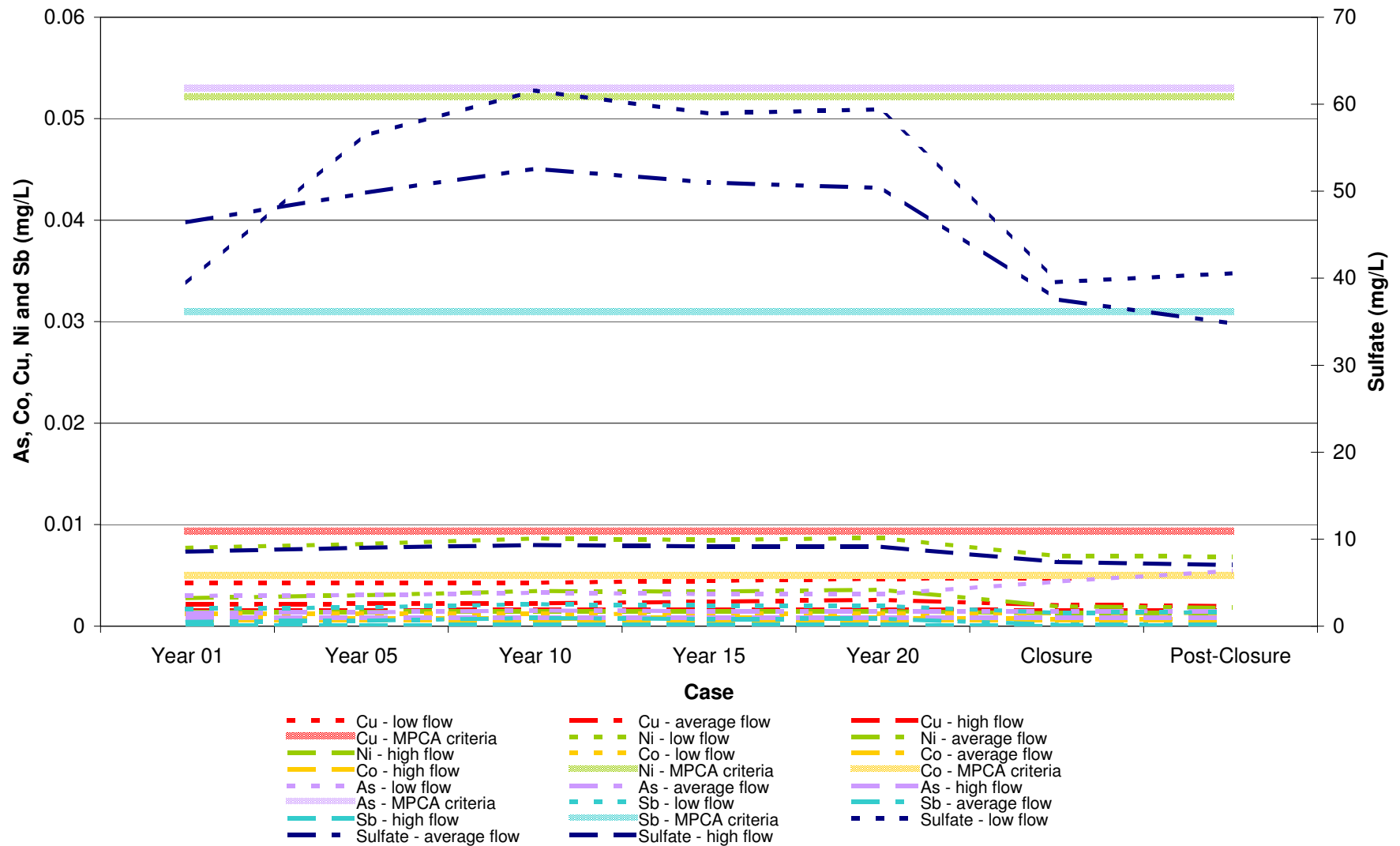
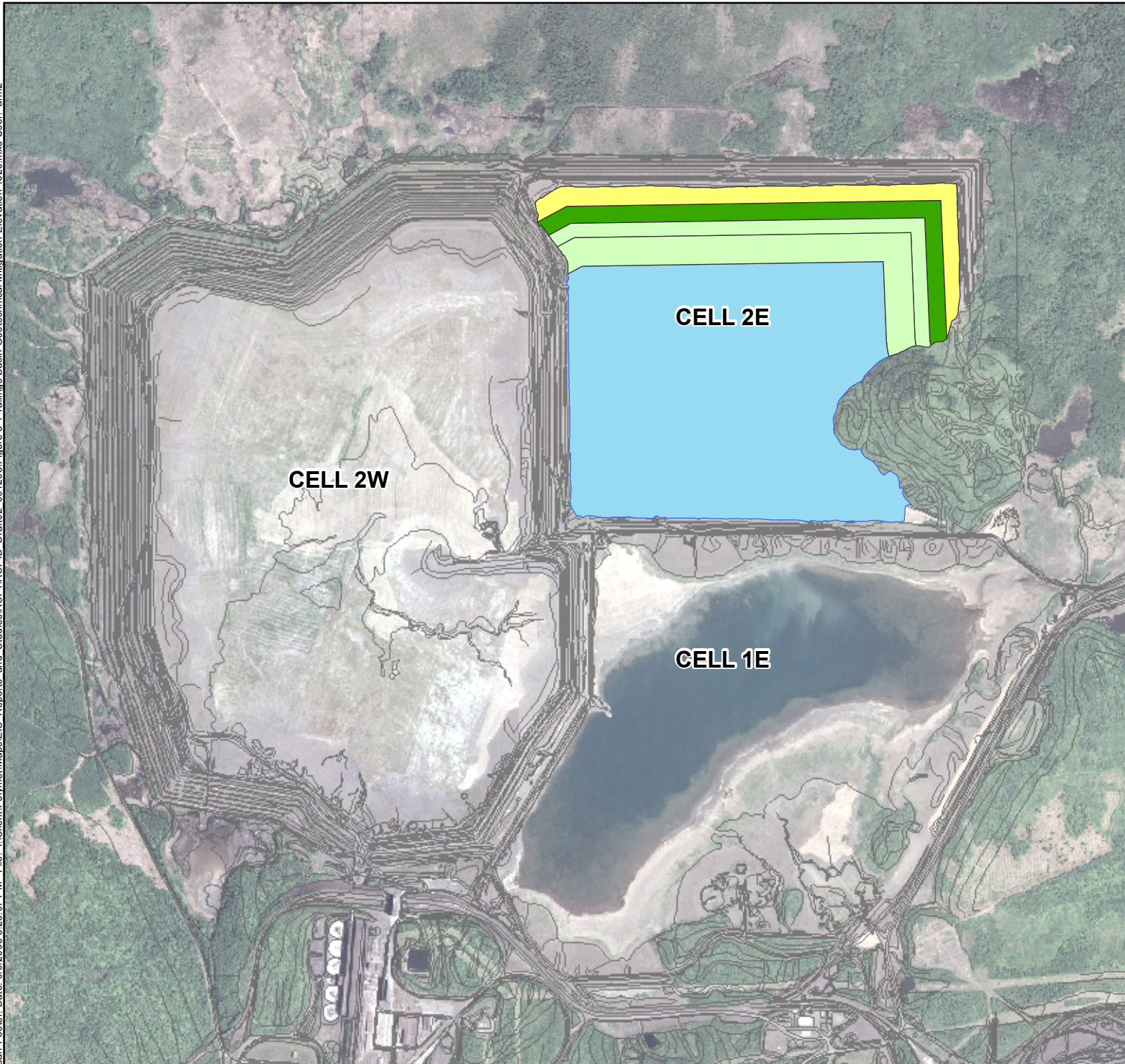


Figure 7-2: Deterministic Water Quality Predictions for Arsenic, Cobalt, Copper, Nickel, Antimony and Sulfate at PM-13 (Embarrass River) as a Function of Tailings Basin - Geotechnical Mitigation Development



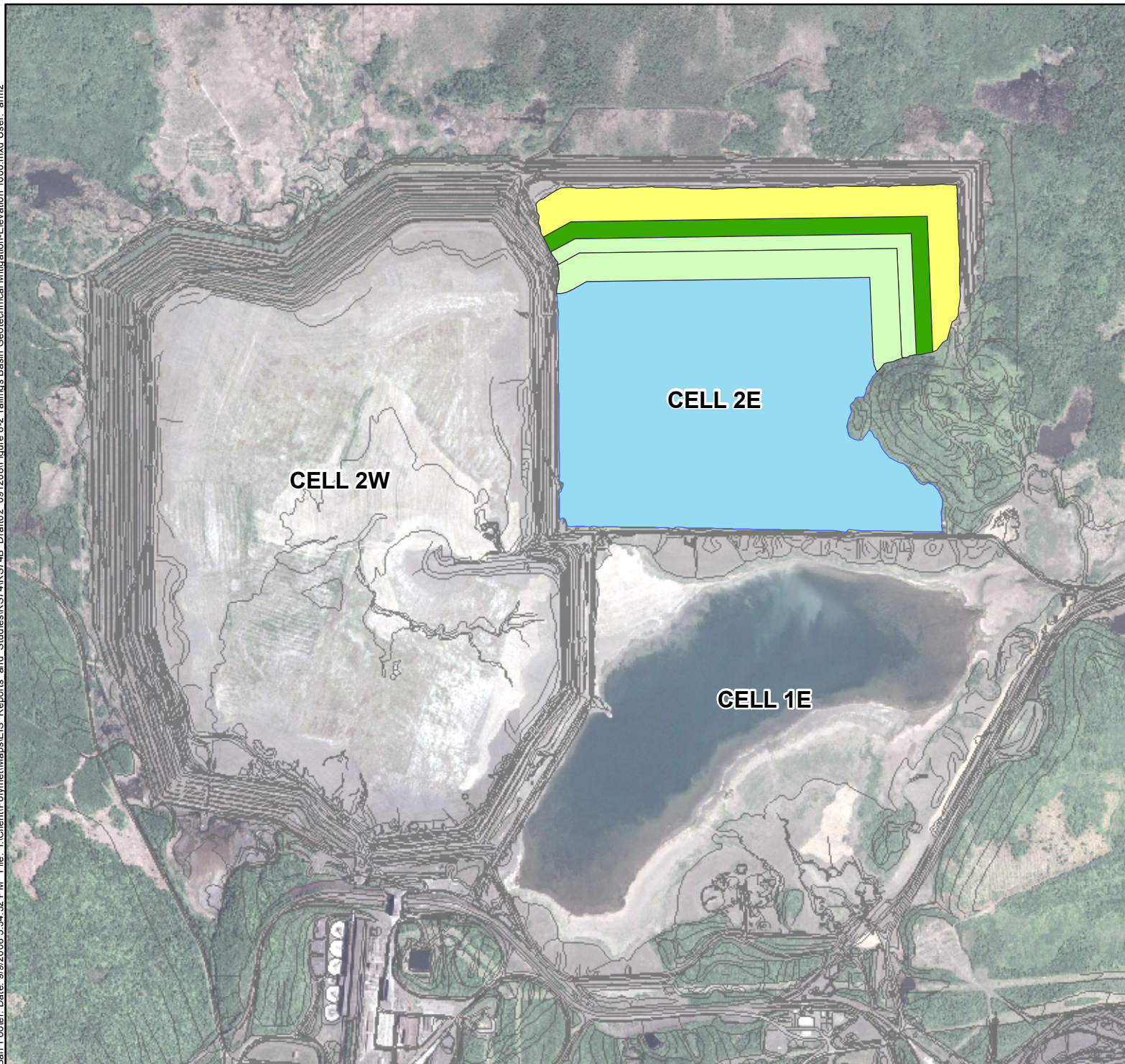


- Embankment
- LTV Beach
- PolyMet Beach
- Pond



2,000 1,000 0 2,000
Feet

Figure 8-1
TAILINGS BASIN
GEOTECHNICAL MITIGATION
ELEVATION 1620
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

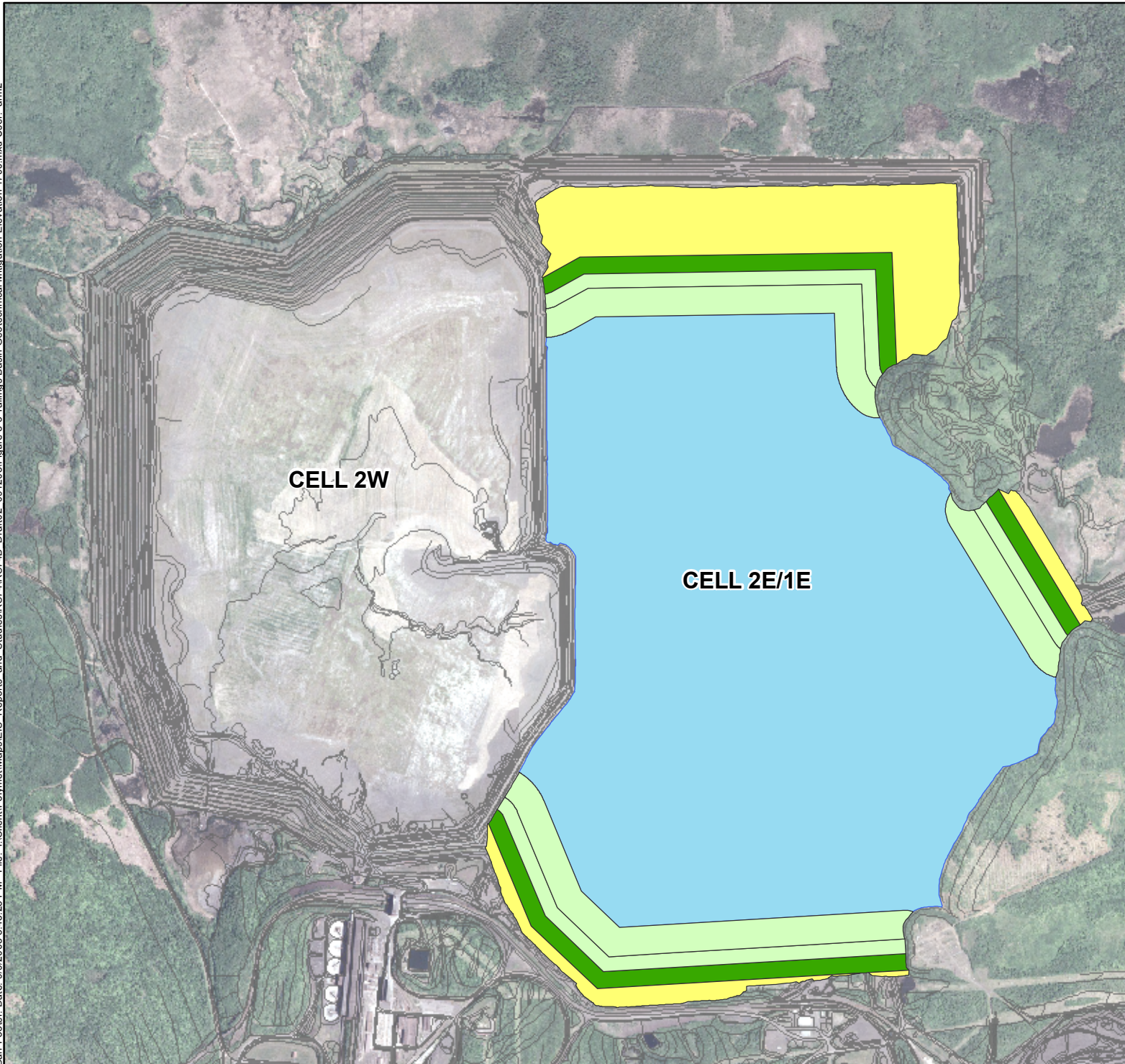


- Embankment
- LTV Beach
- PolyMet Beach
- Pond



2,000 1,000 0 2,000
Feet

Figure 8-2
TAILINGS BASIN
GEOTECHNICAL MITIGATION
ELEVATION 1660
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



- Embankment
- LTV Beach
- PolyMet Beach
- Pond

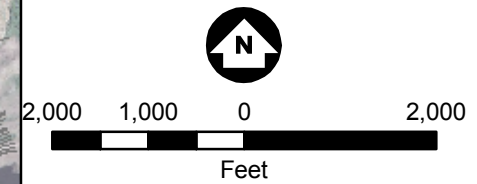
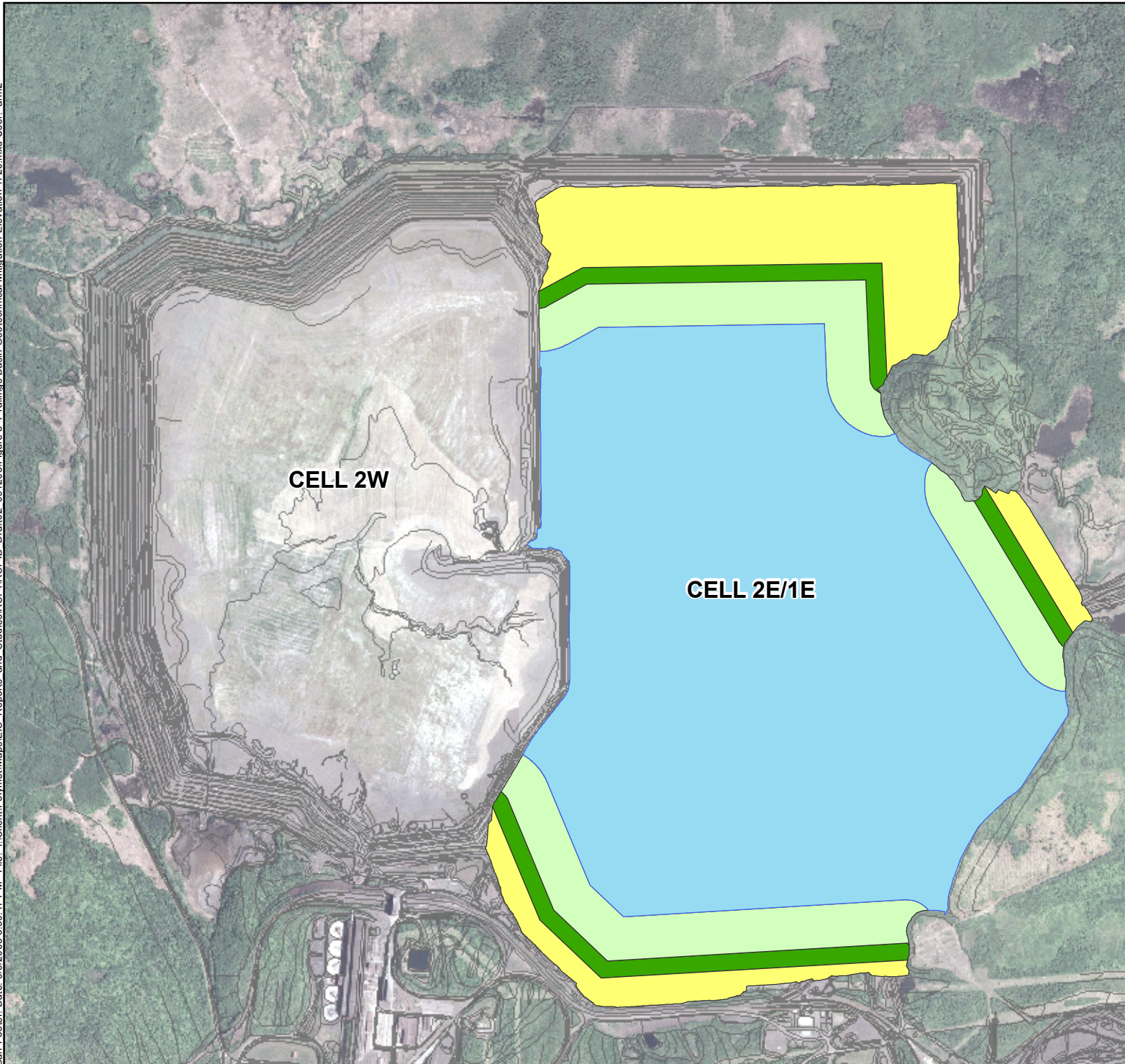


Figure 8-3
TAILINGS BASIN
GEOTECHNICAL MITIGATION
ELEVATION 1700
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



- Embankment
- LTV Beach
- PolyMet Beach
- Pond

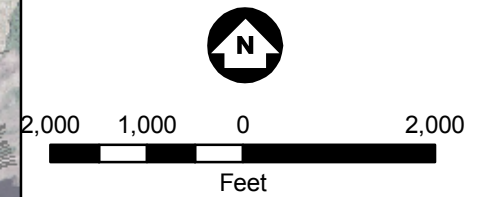


Figure 8-4
TAILINGS BASIN
GEOTECHNICAL MITIGATION
ELEVATION 1720
NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

Figure 8-5
Year 4 Flow Conditions - Cell 2E
Geotechnical Mitigation

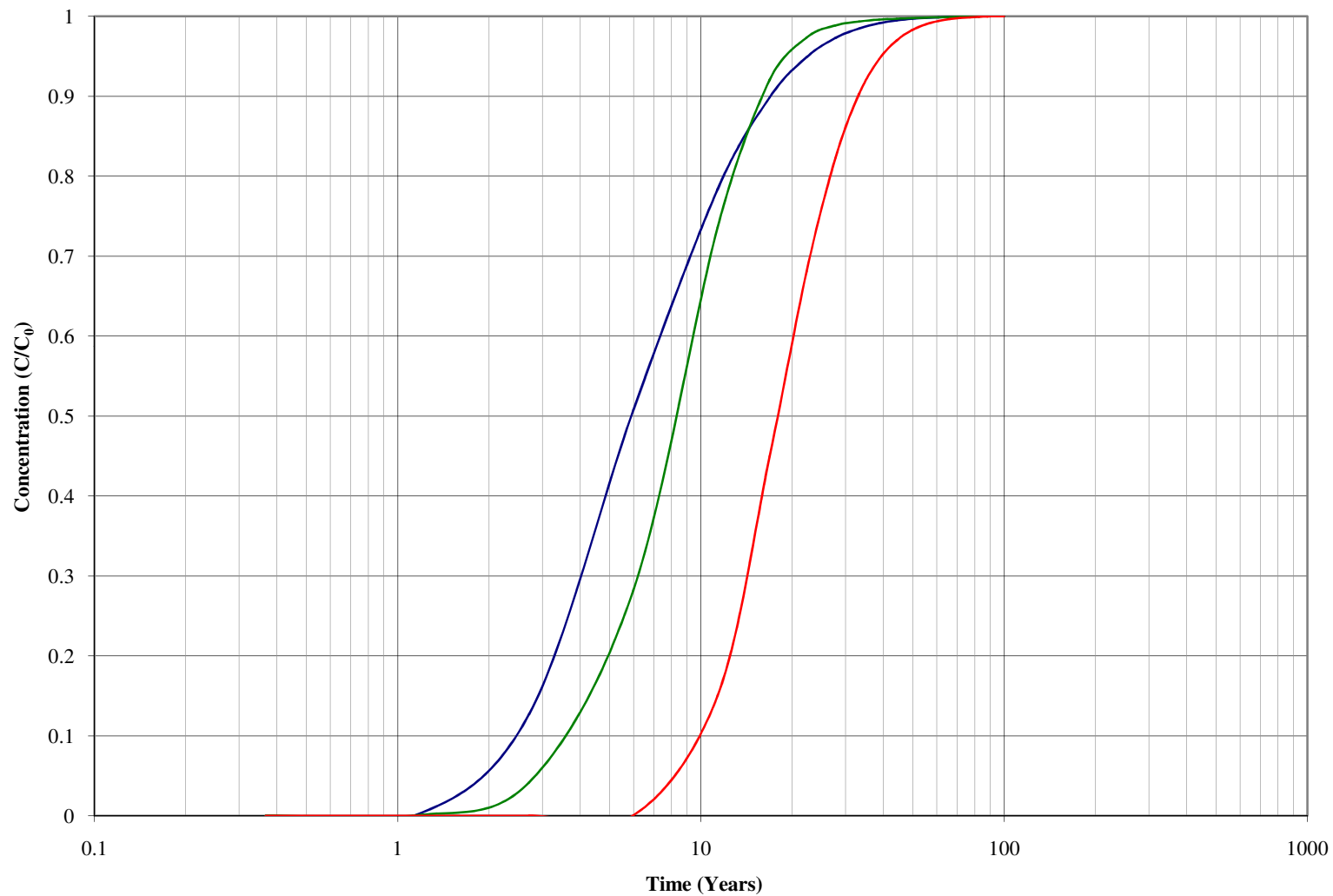


Figure 8-6
Year 7 Flow Conditions - Cell 2E
Geotechnical Mitigation

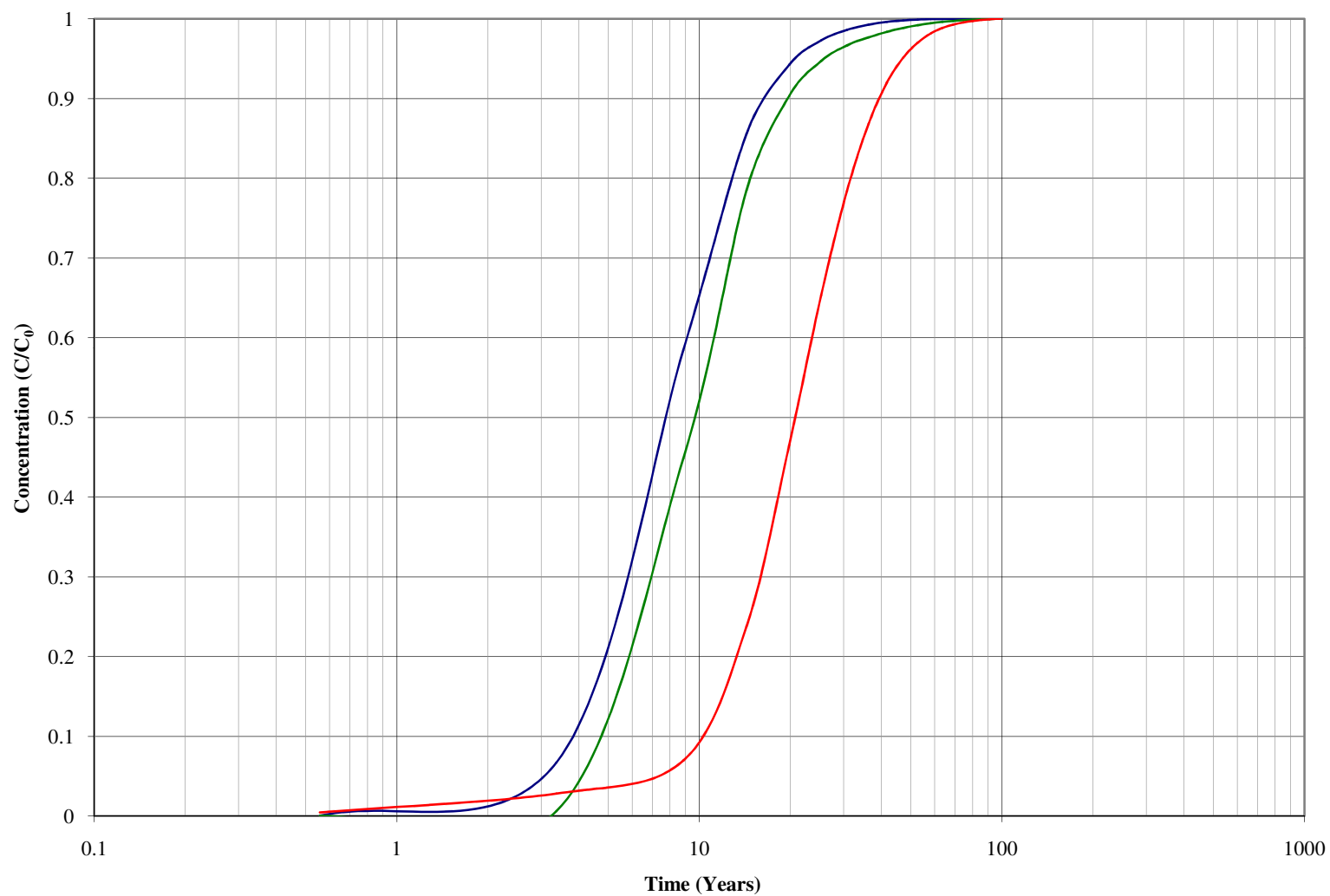


Figure 8-7
Year 15 Flow Conditions - Cell 2E
Geotechnical Mitigation

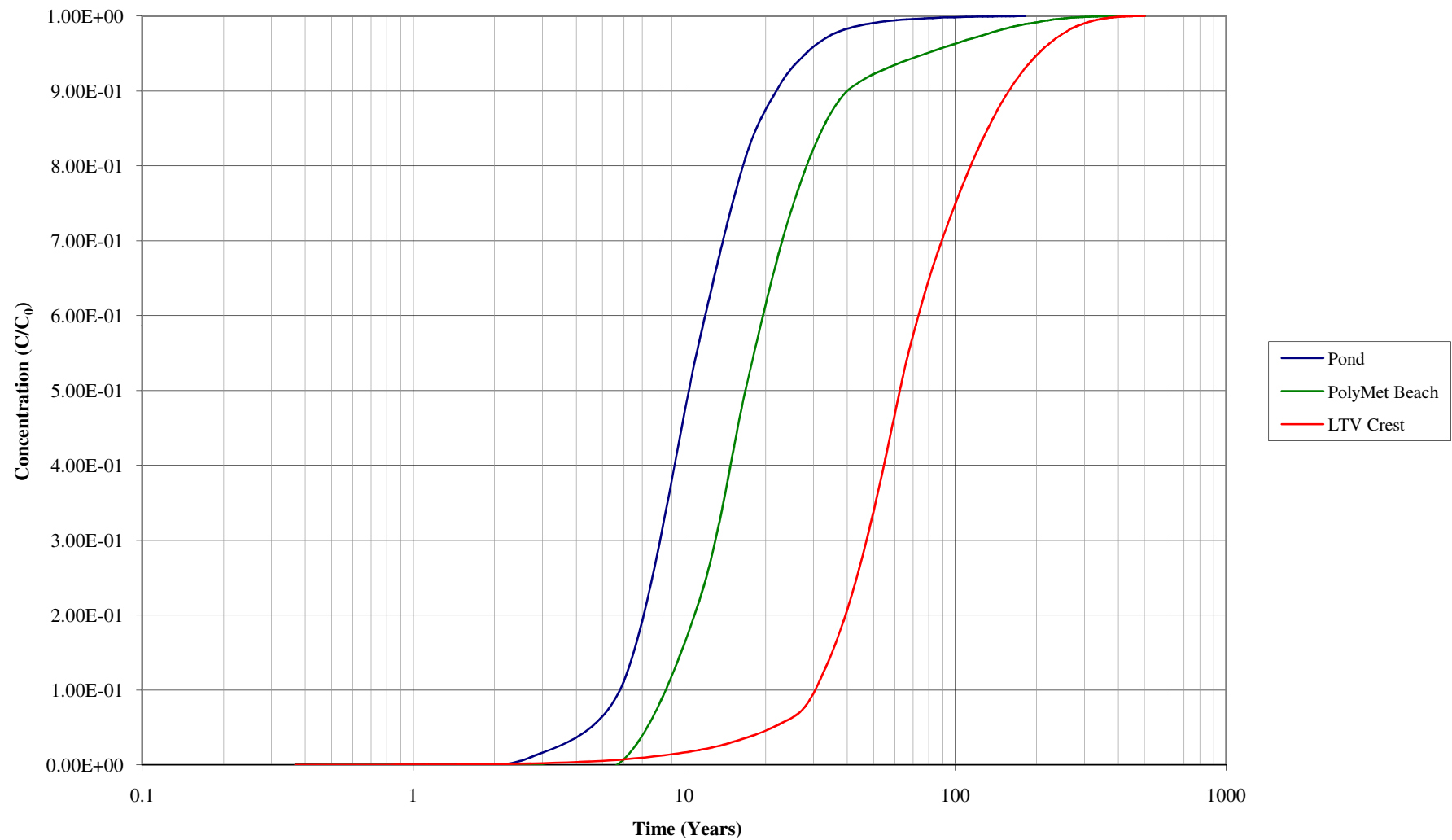


Figure 8-8
Year 20 Flow Conditions - Cell 2E
Geotechnical Mitigation

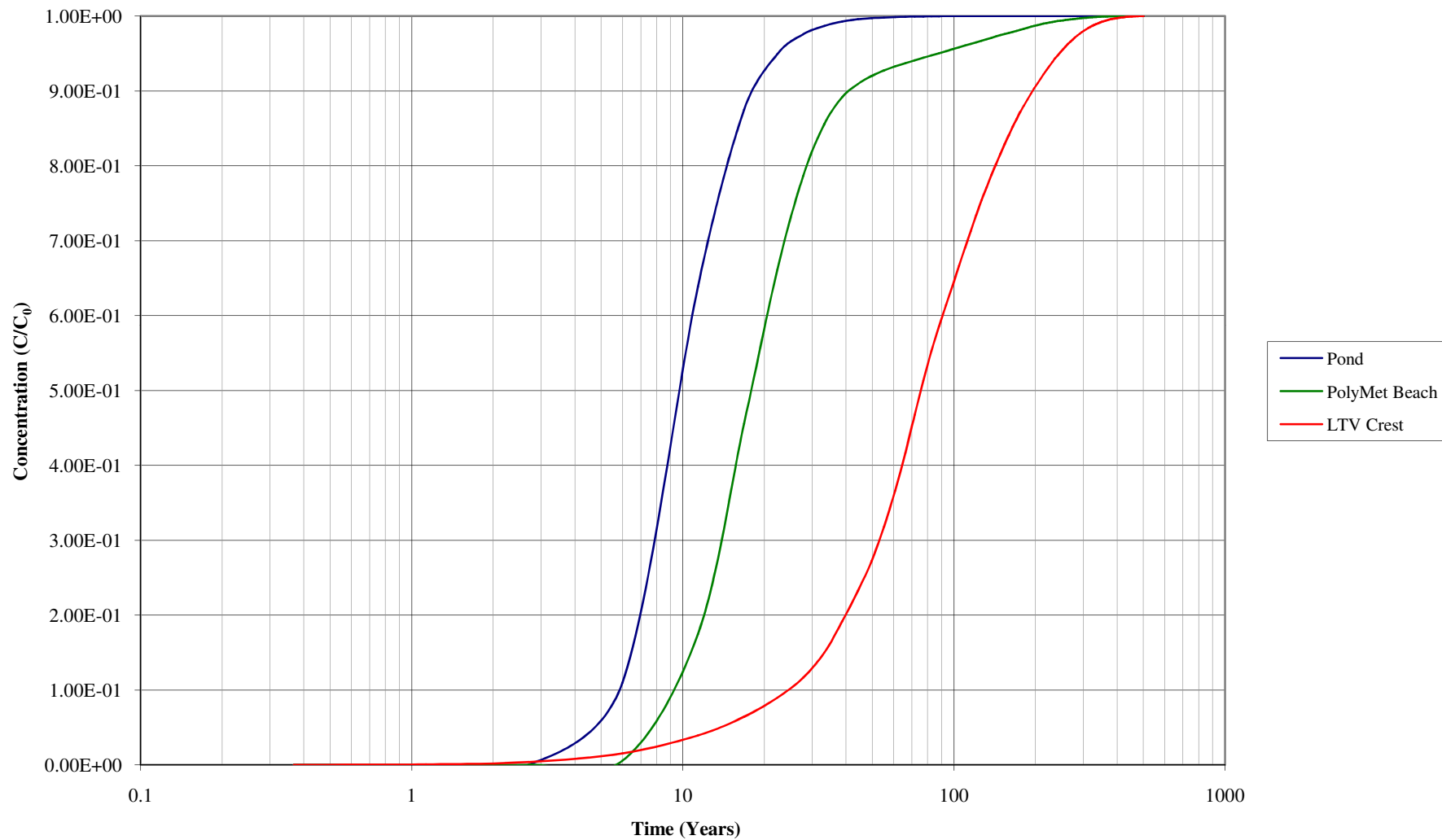


Figure 8-9
LTV Dam Crest Seepage - Cell 2E
Geotechnical Mitigation

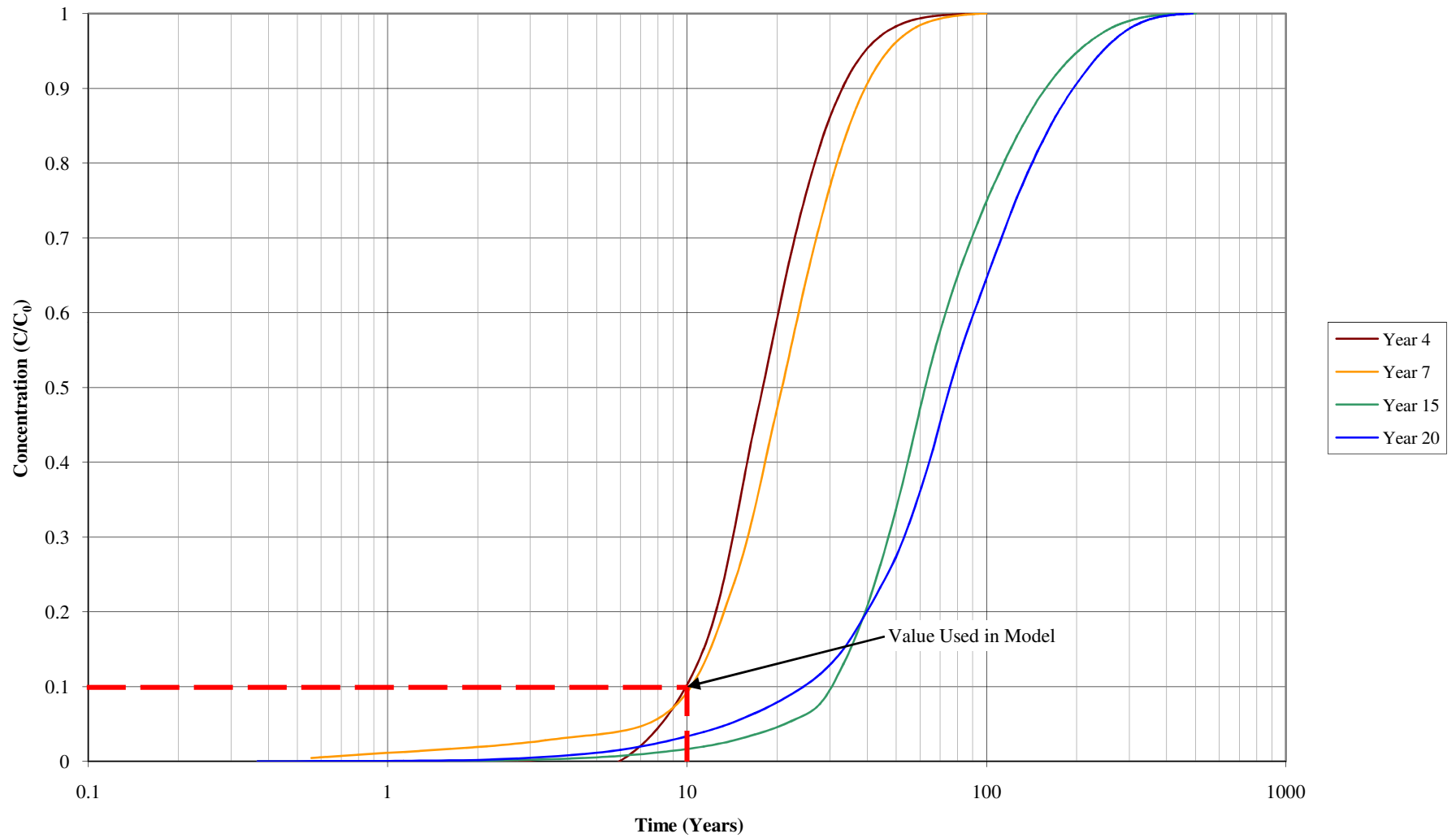


Figure 8-10
PolyMet Beach Seepage - Cell 2E
Geotechnical Mitigation

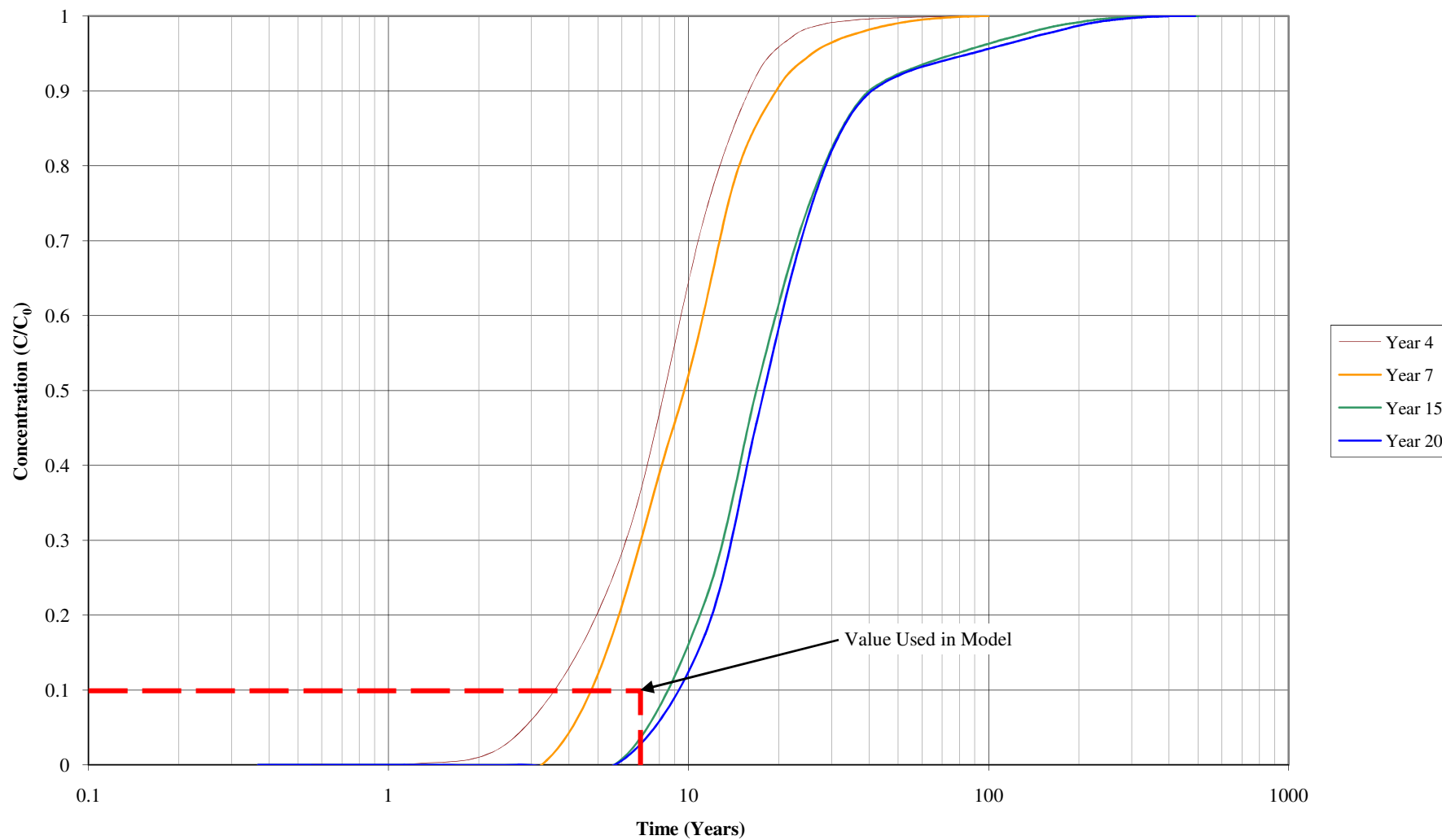


Figure 8-11
Pond Seepage - Cell 2E
Geotechnical Mitigation

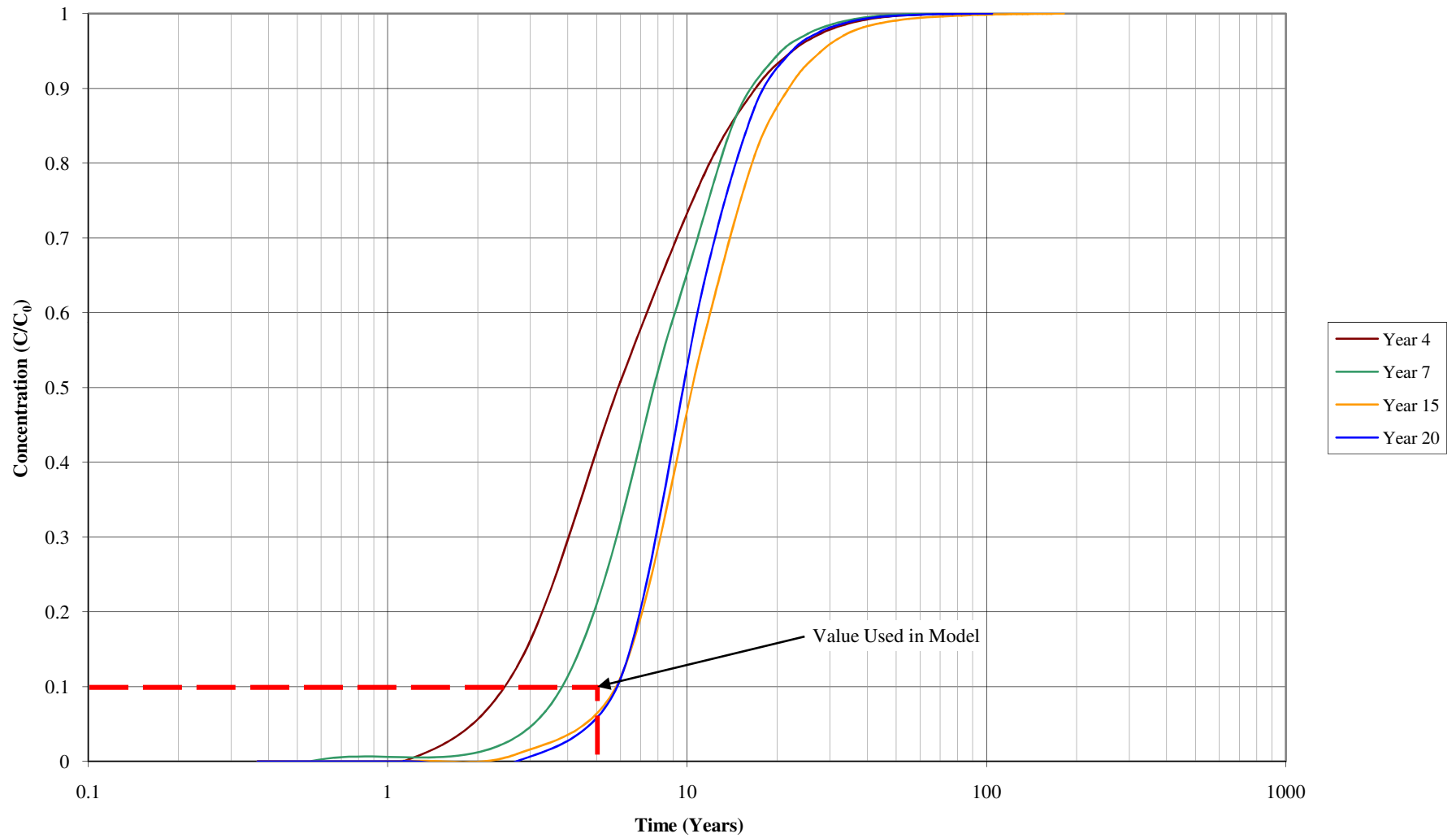


Figure 8-12
Year 4 Flow Conditions - Cell 2E
Geotechnical Mitigation

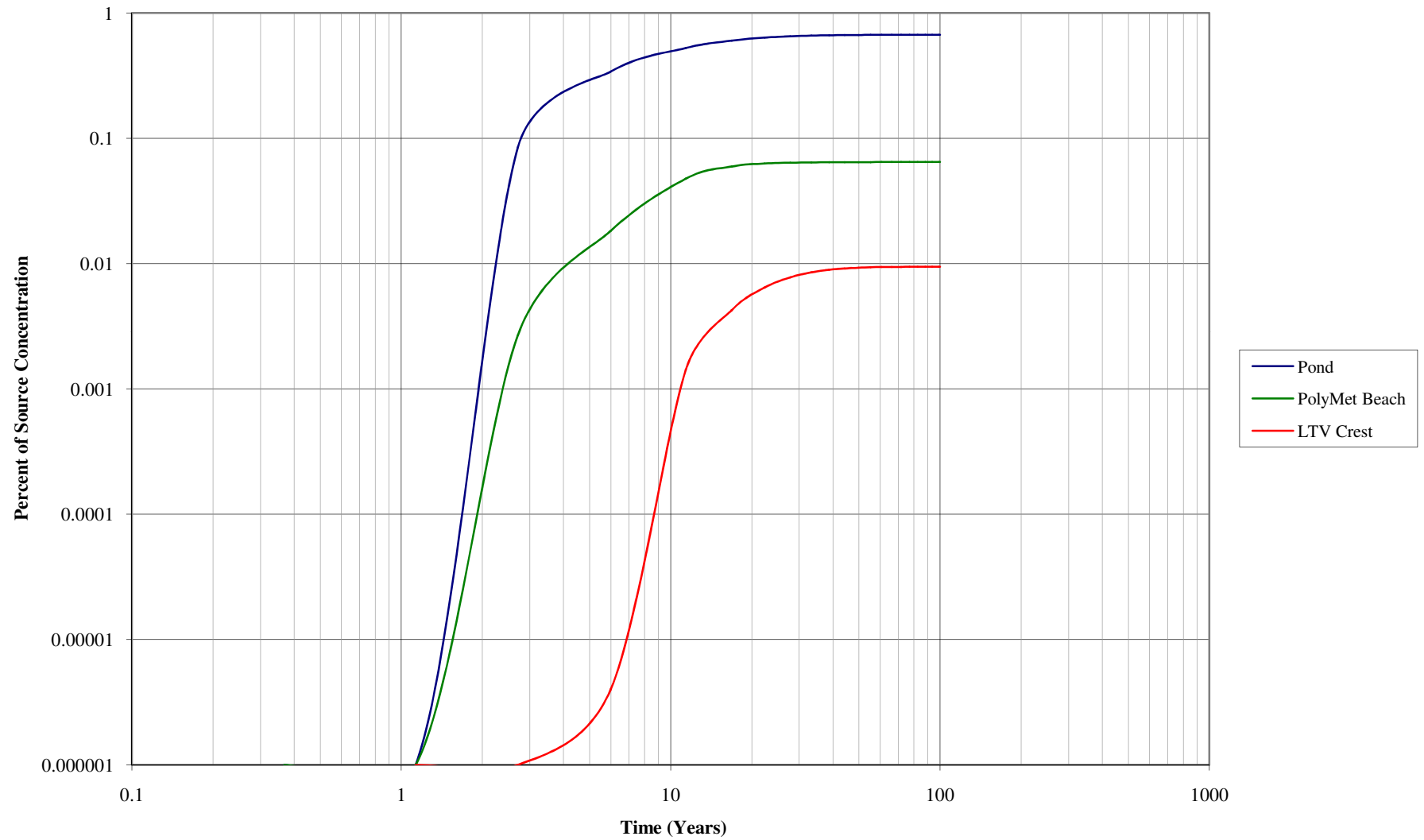


Figure 8-13
Year 7 Flow Conditions - Cell 2E
Geotechnical Mitigation

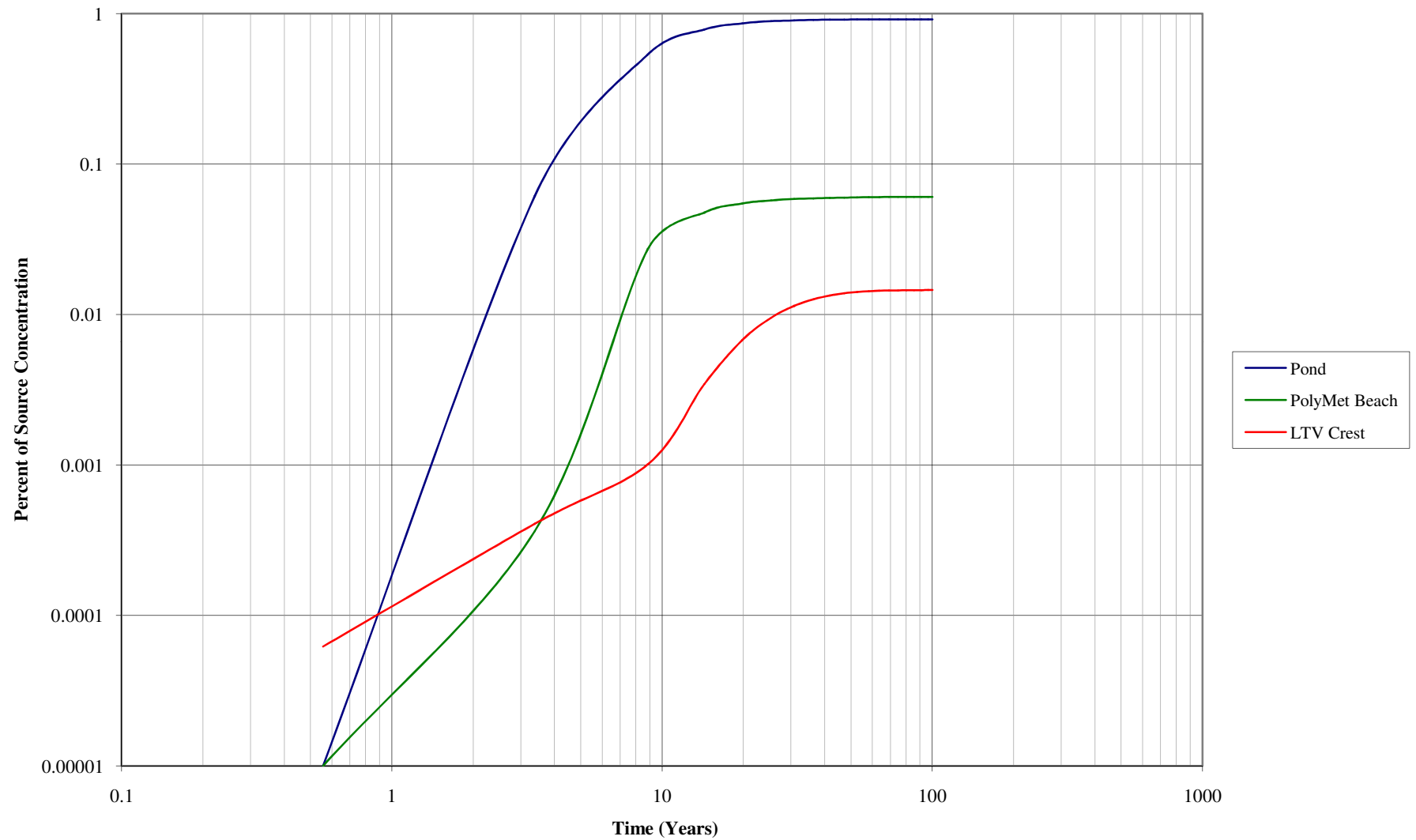


Figure 8-14
Year 15 Flow Conditions - Cell 2E
Geotechnical Mitigation

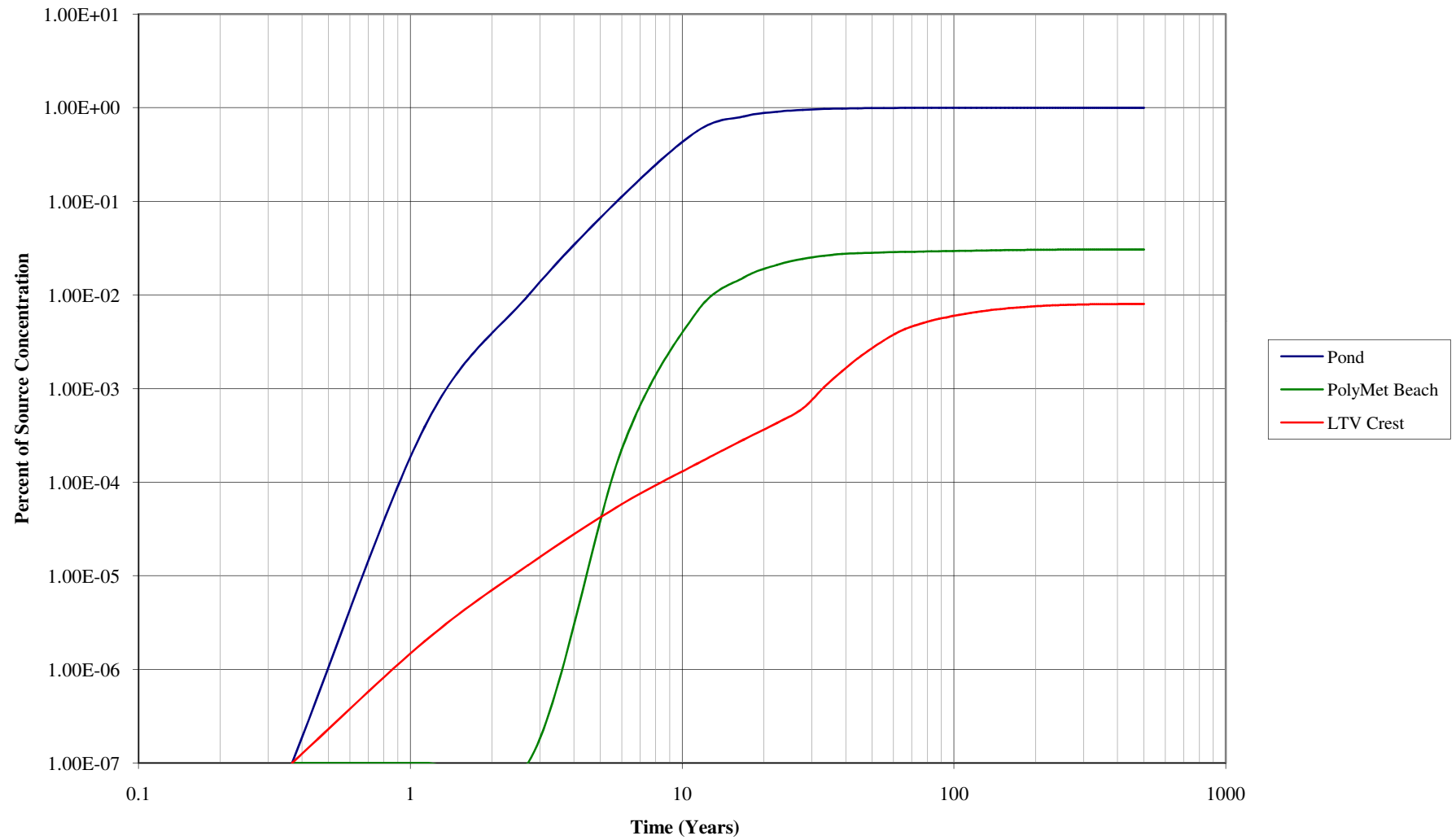


Figure 8-15
Year 20 Flow Conditions - Cell 2E
Geotechnical Mitigation

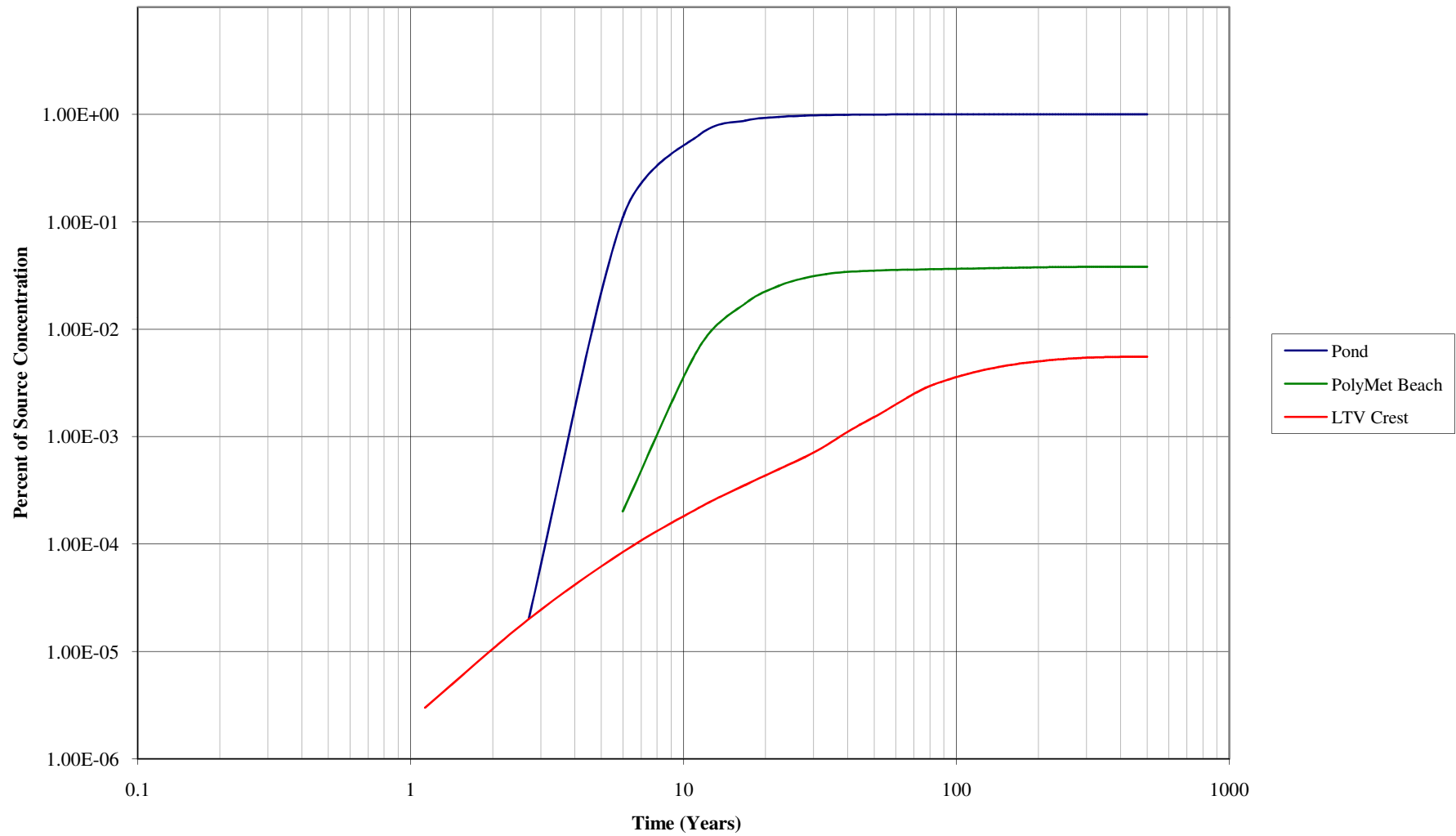


Figure 8-16
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Sulfate

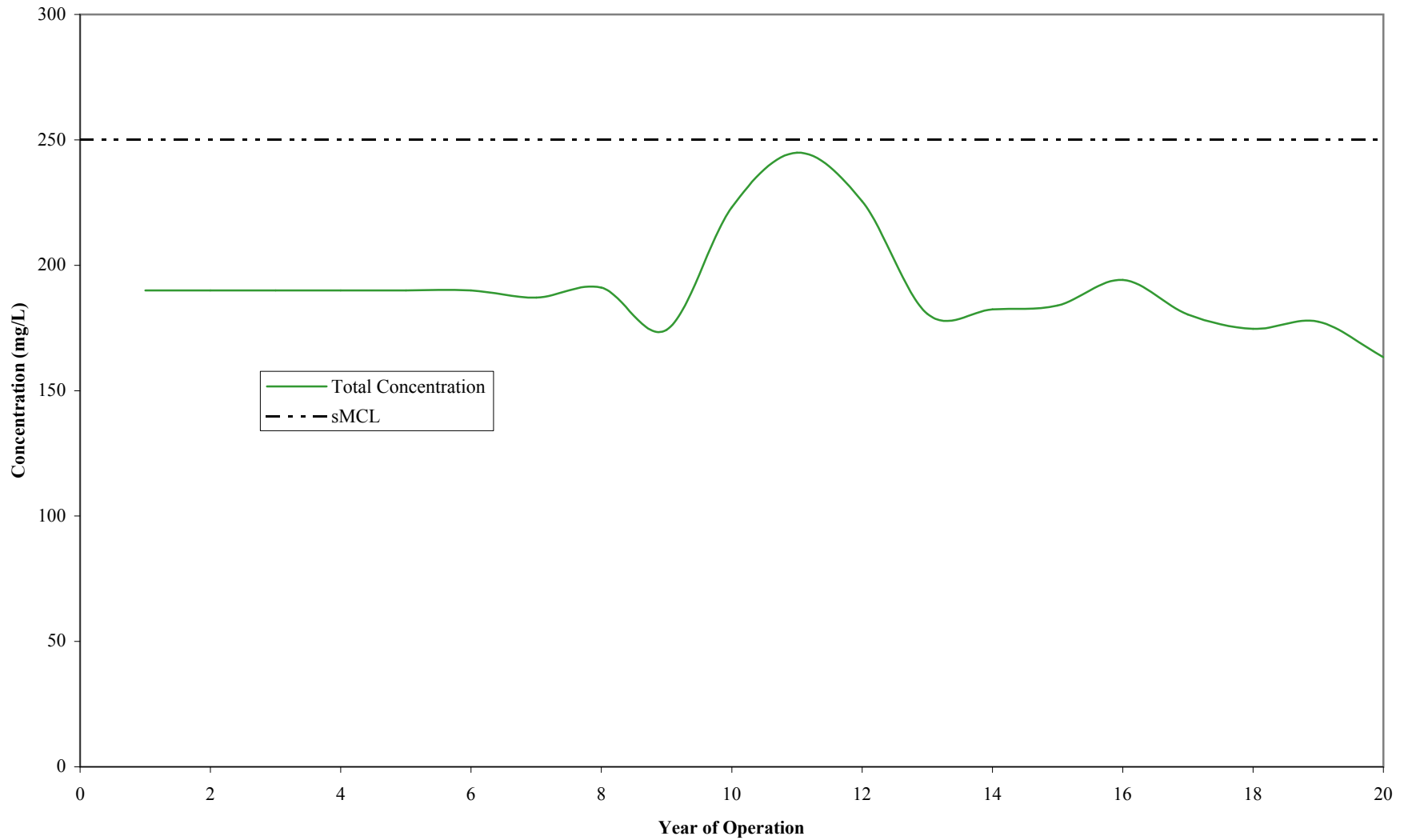


Figure 8-17
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Silver

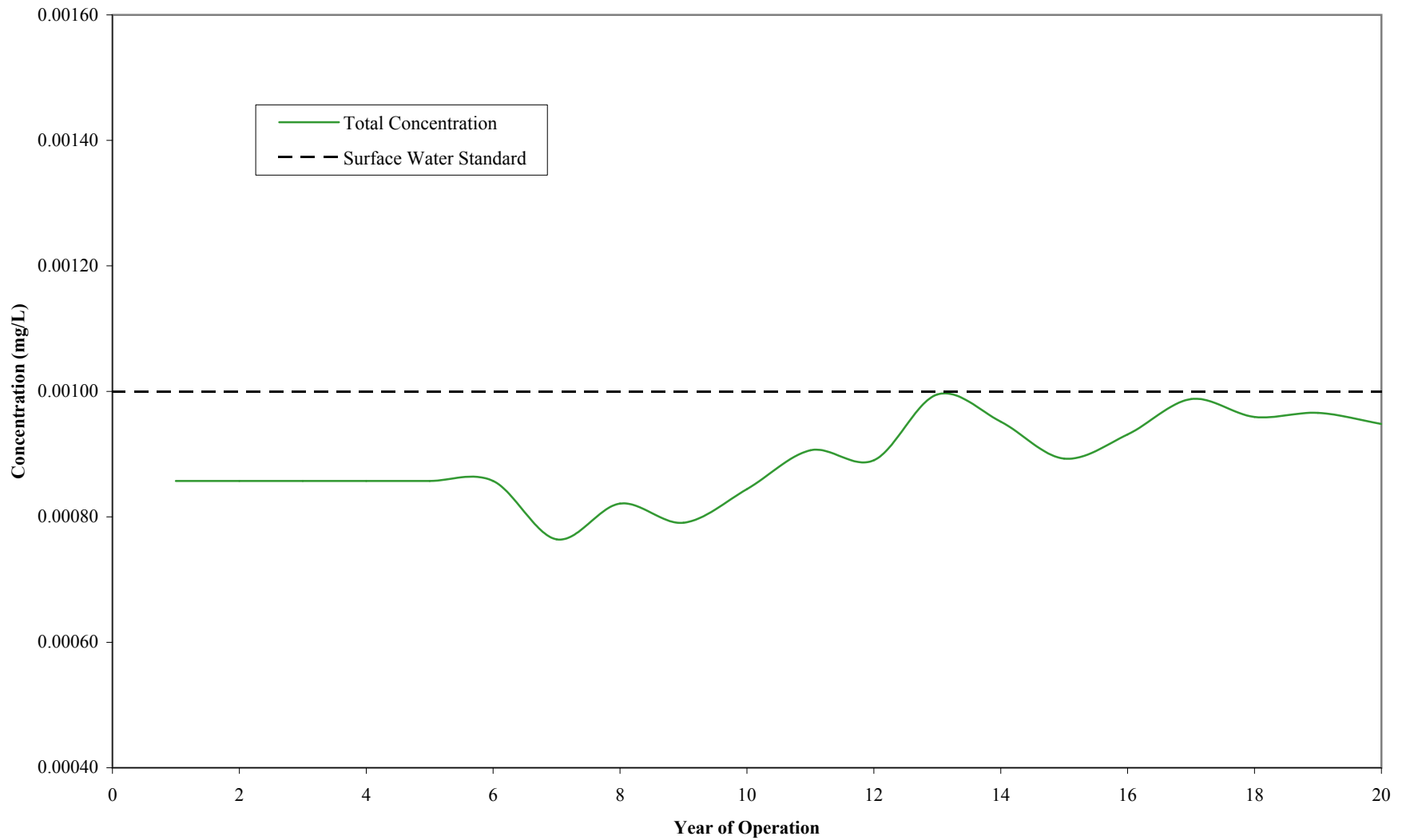


Figure 8-18
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Antimony

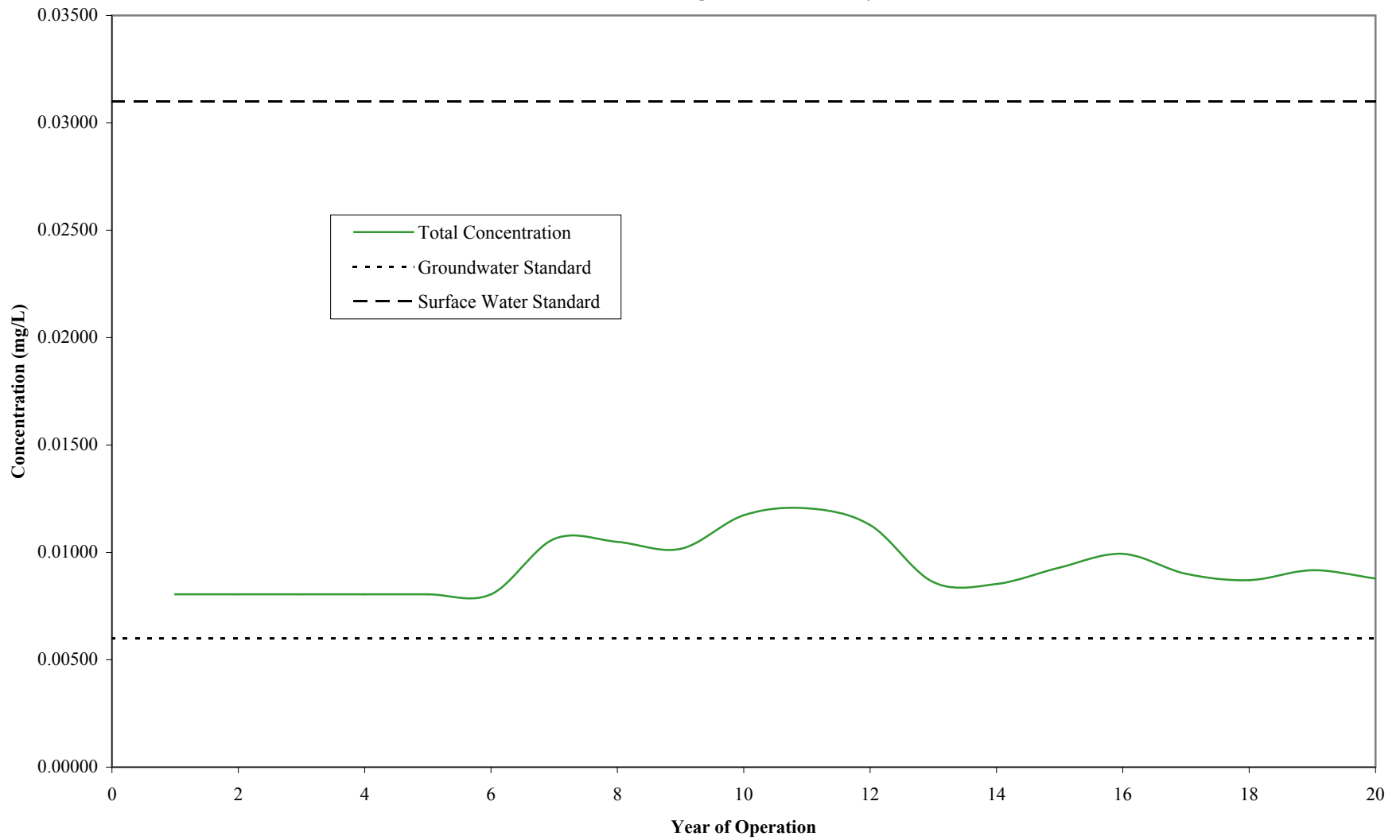


Figure 8-19
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Arsenic

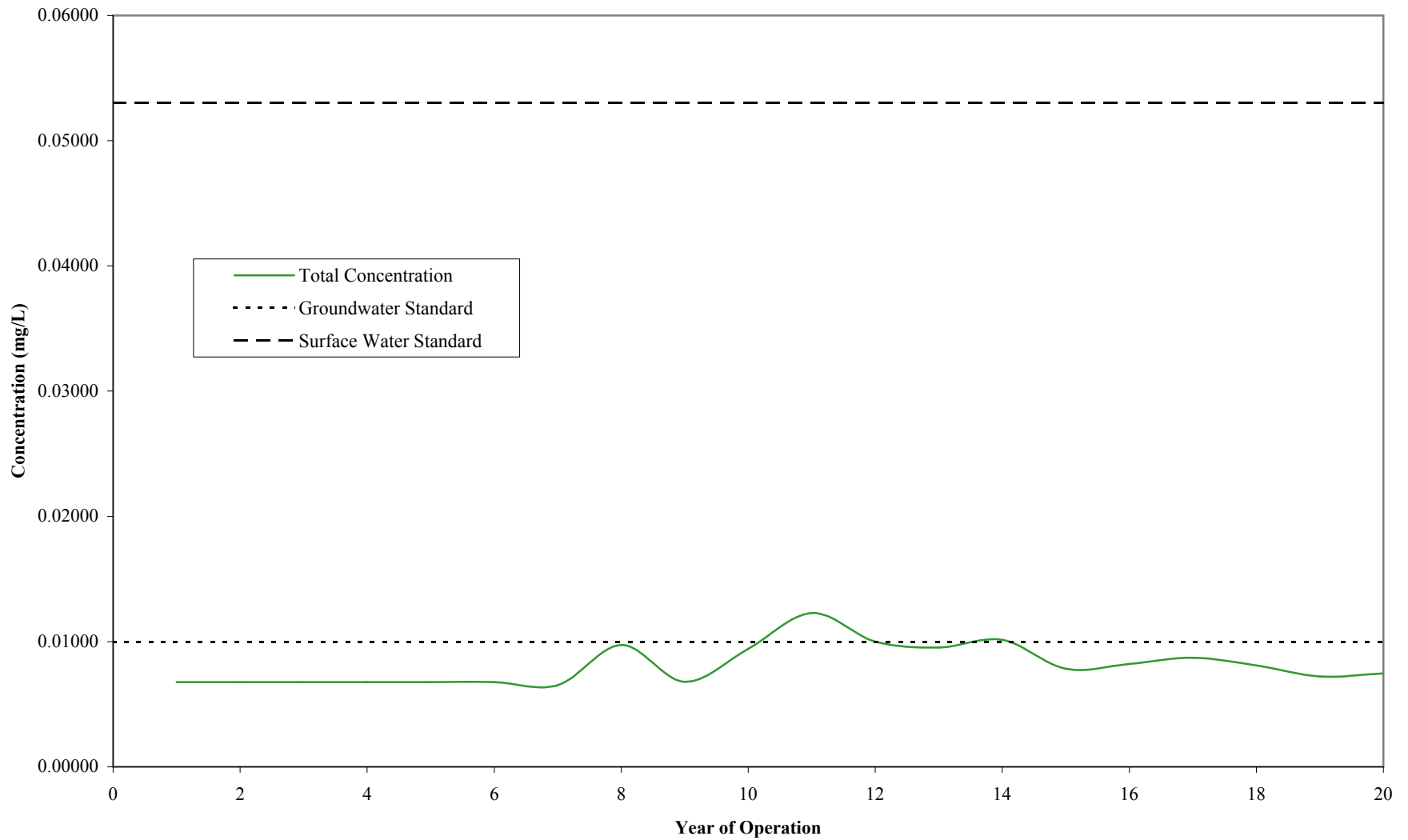


Figure 8-20
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Cobalt

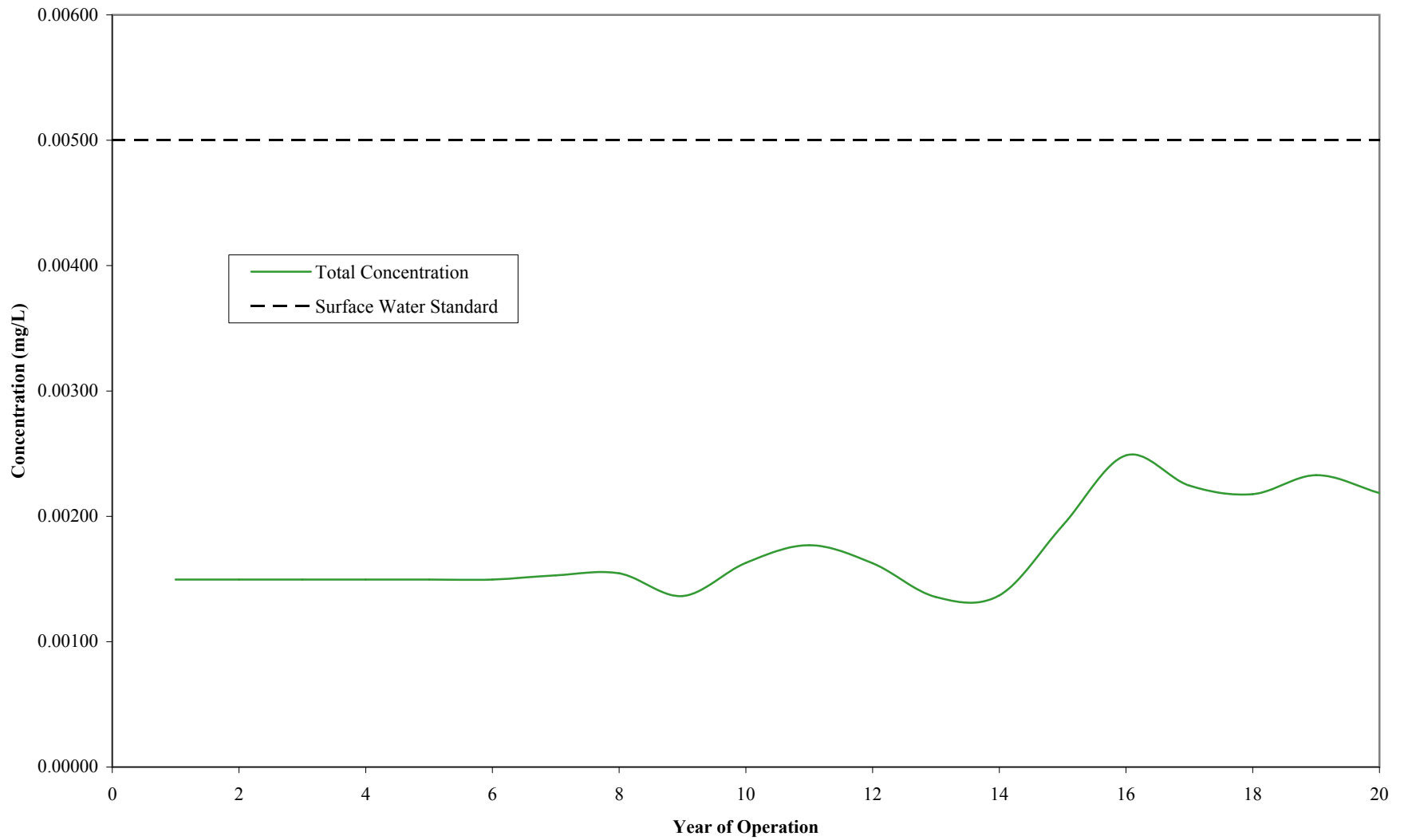


Figure 8-21
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Copper

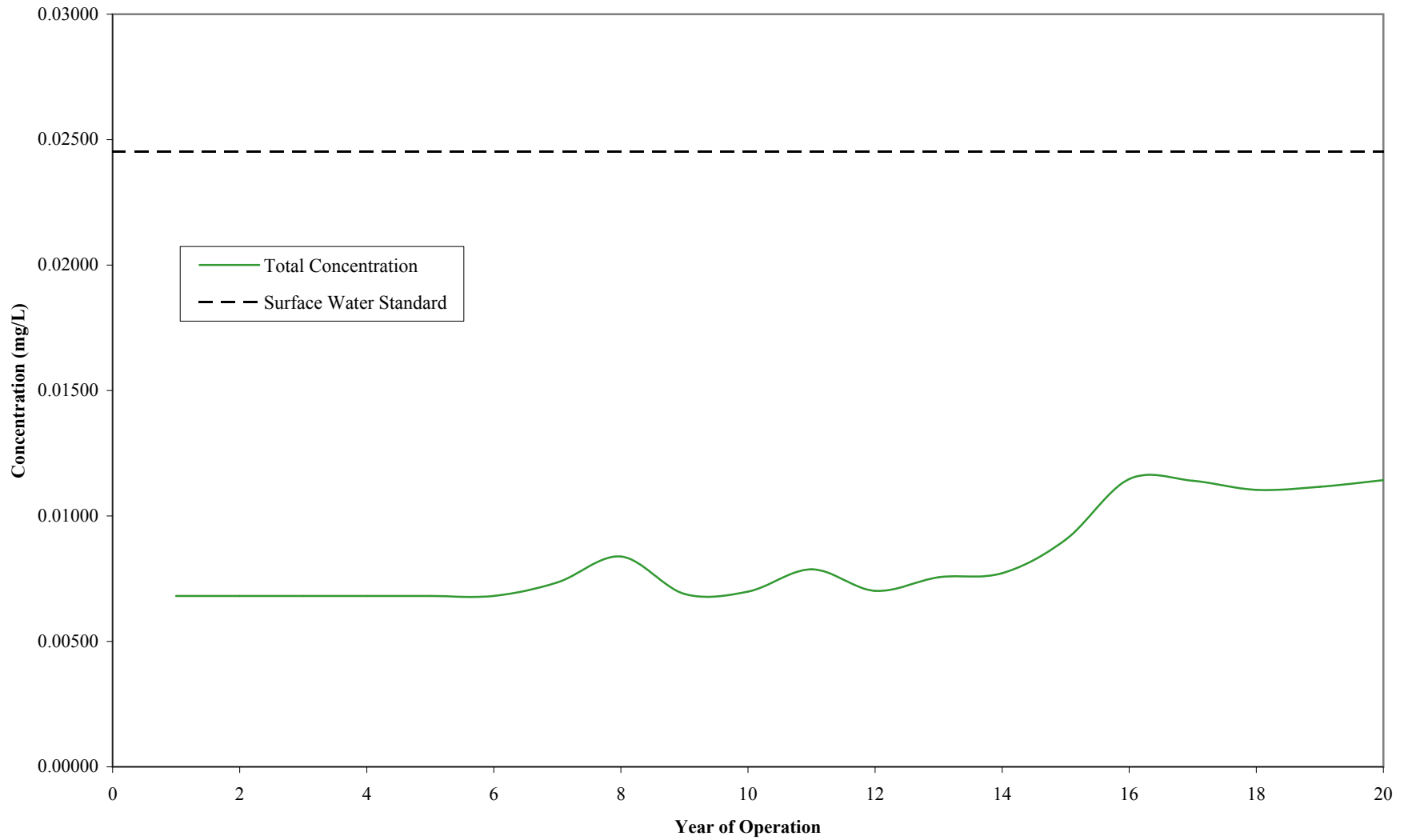


Figure 8-22
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Nickel

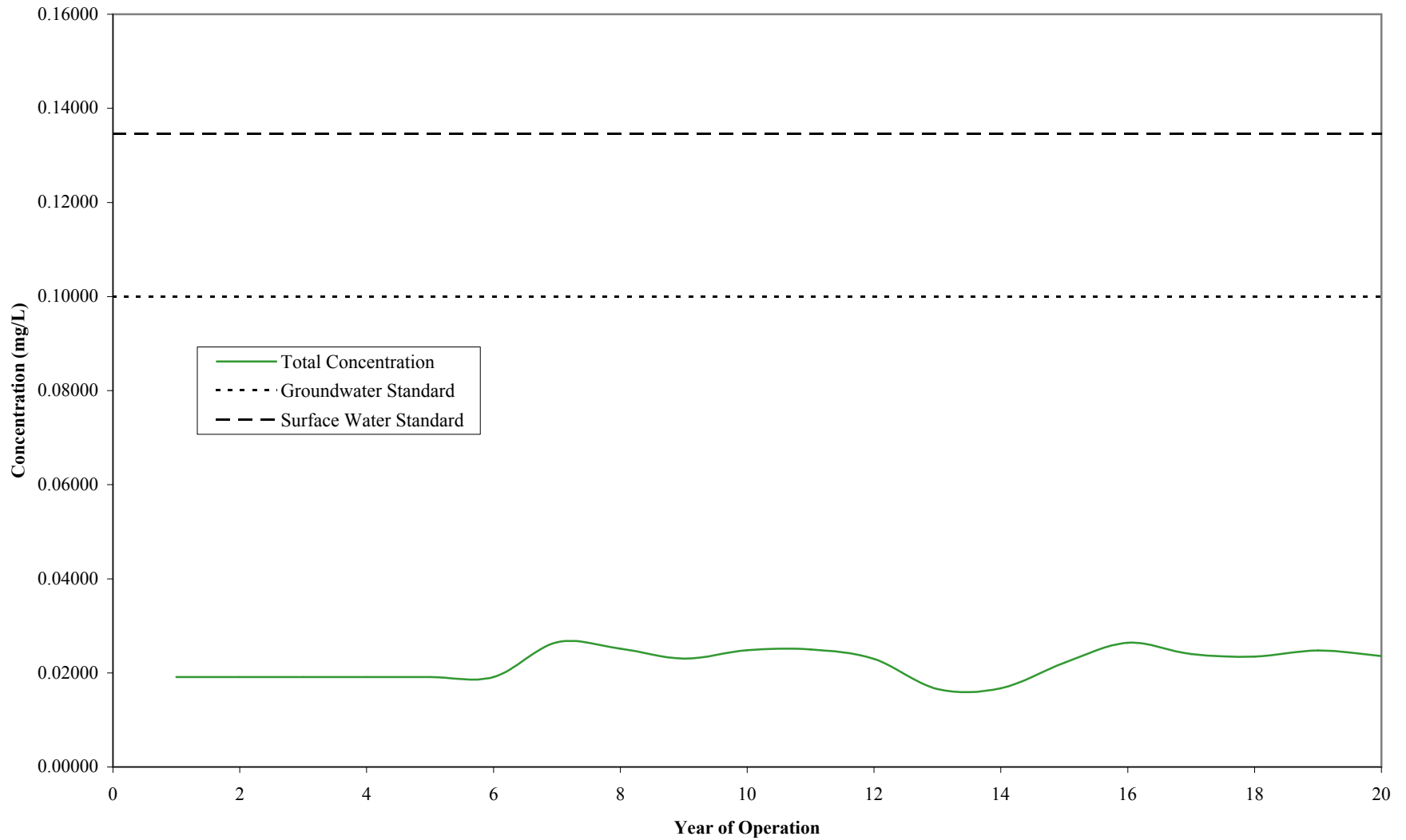
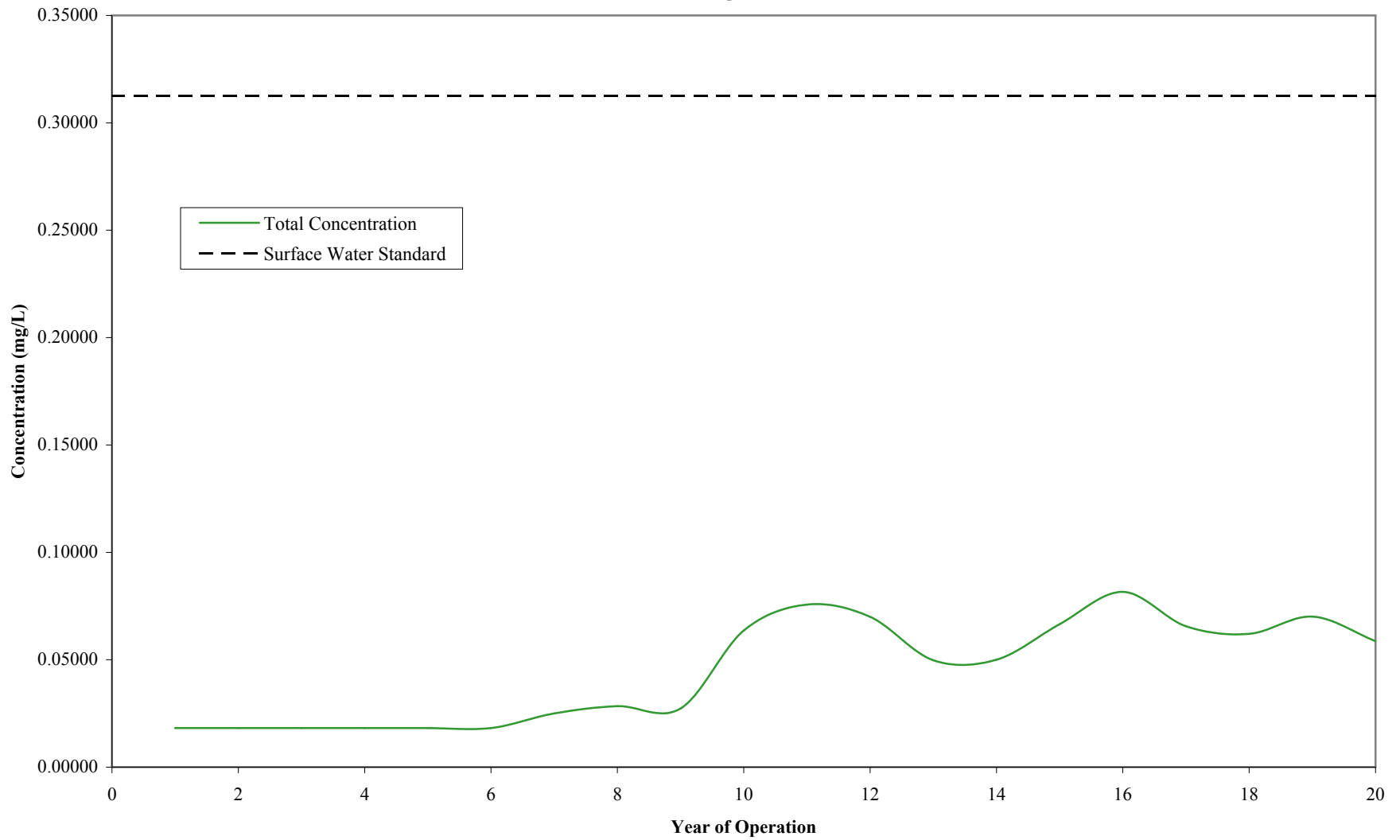
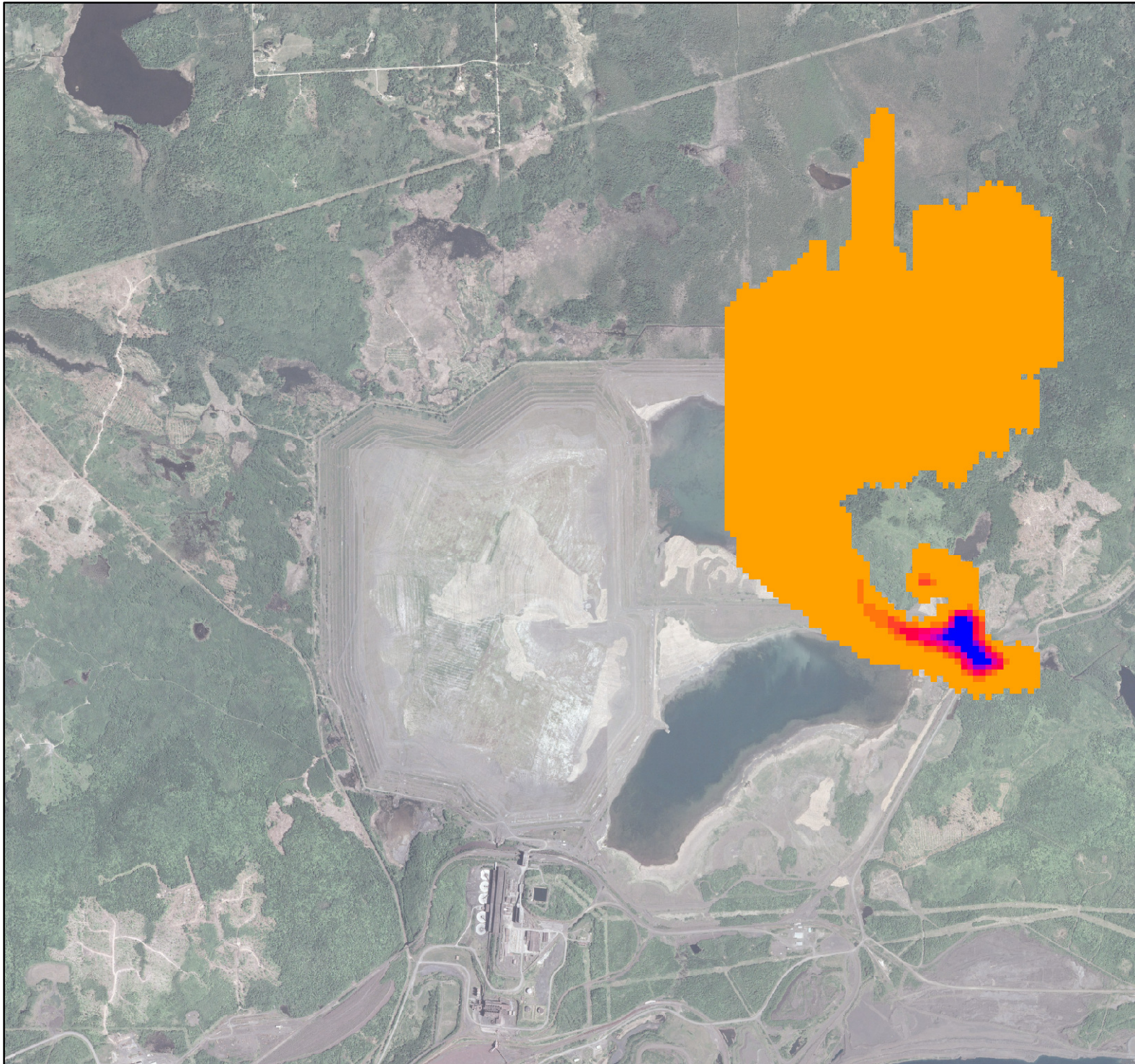


Figure 8-23
Predicted Concentration - Cell 2E
Geotechnical Mitigation - Zinc





Embankment Cell 1E east
Ratio

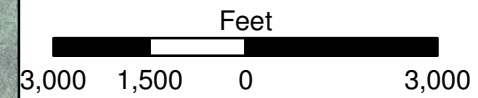
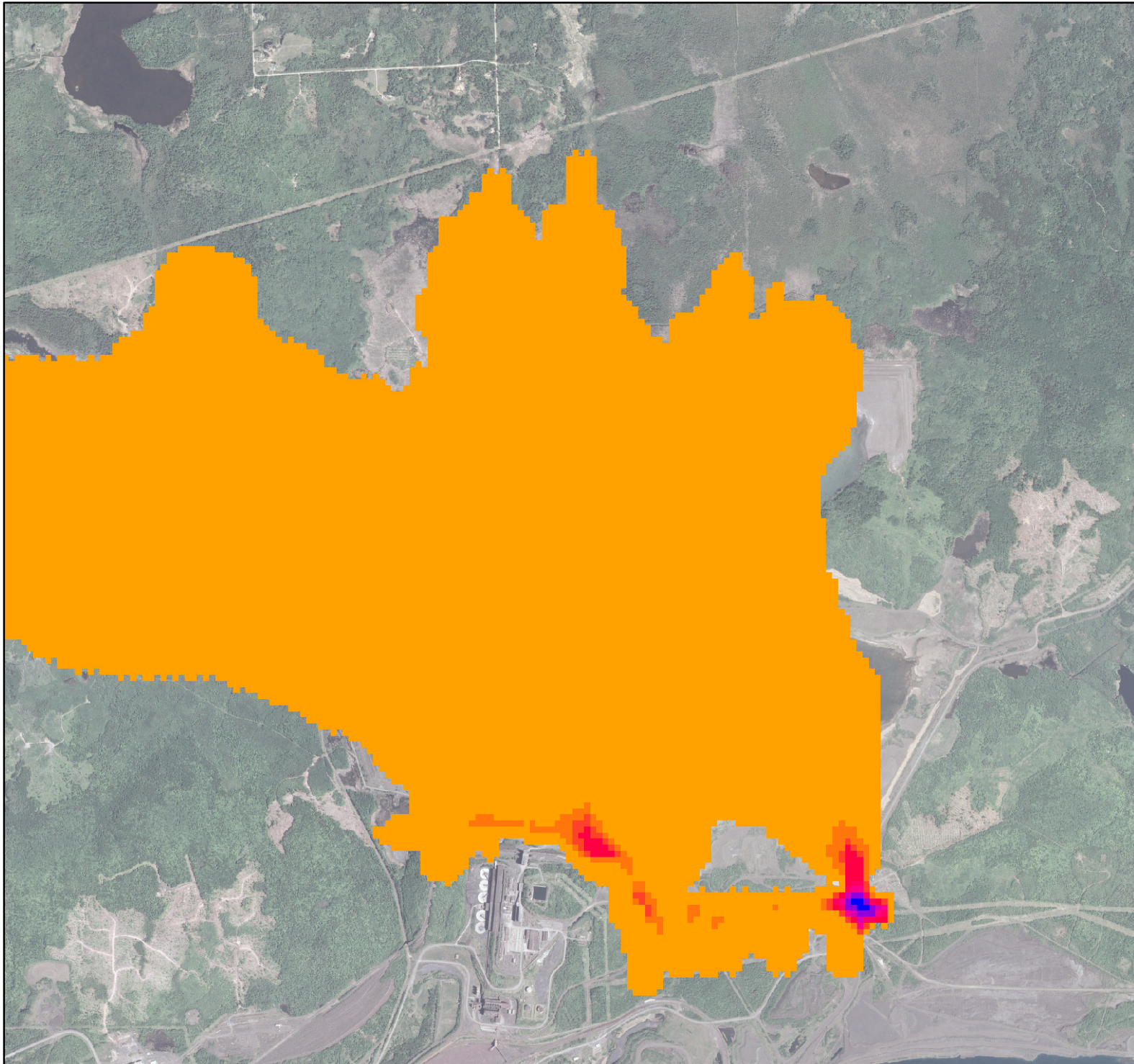


Figure 8-24
Ratio Contribution from
Cell 1E East Embankment
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Embankment Cell 1 E south
Ratio

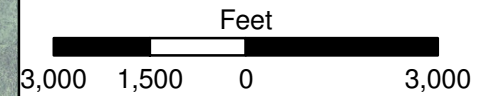
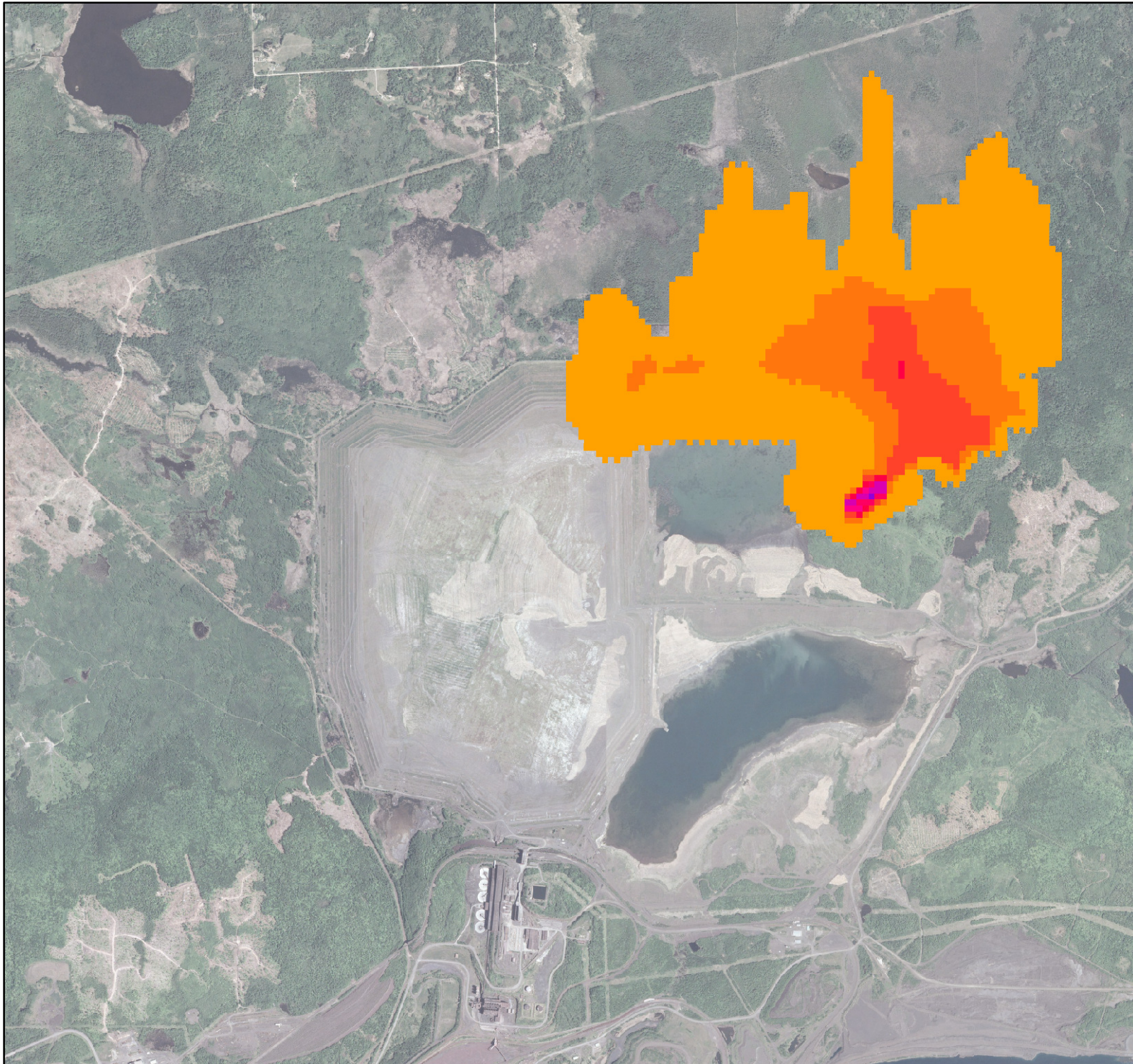


Figure 8-25
Ratio Contribution from
Cell 1E South Embankment
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Embankment Cell 2E

Ratio



Feet

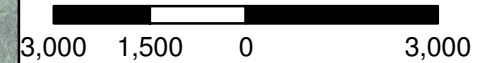
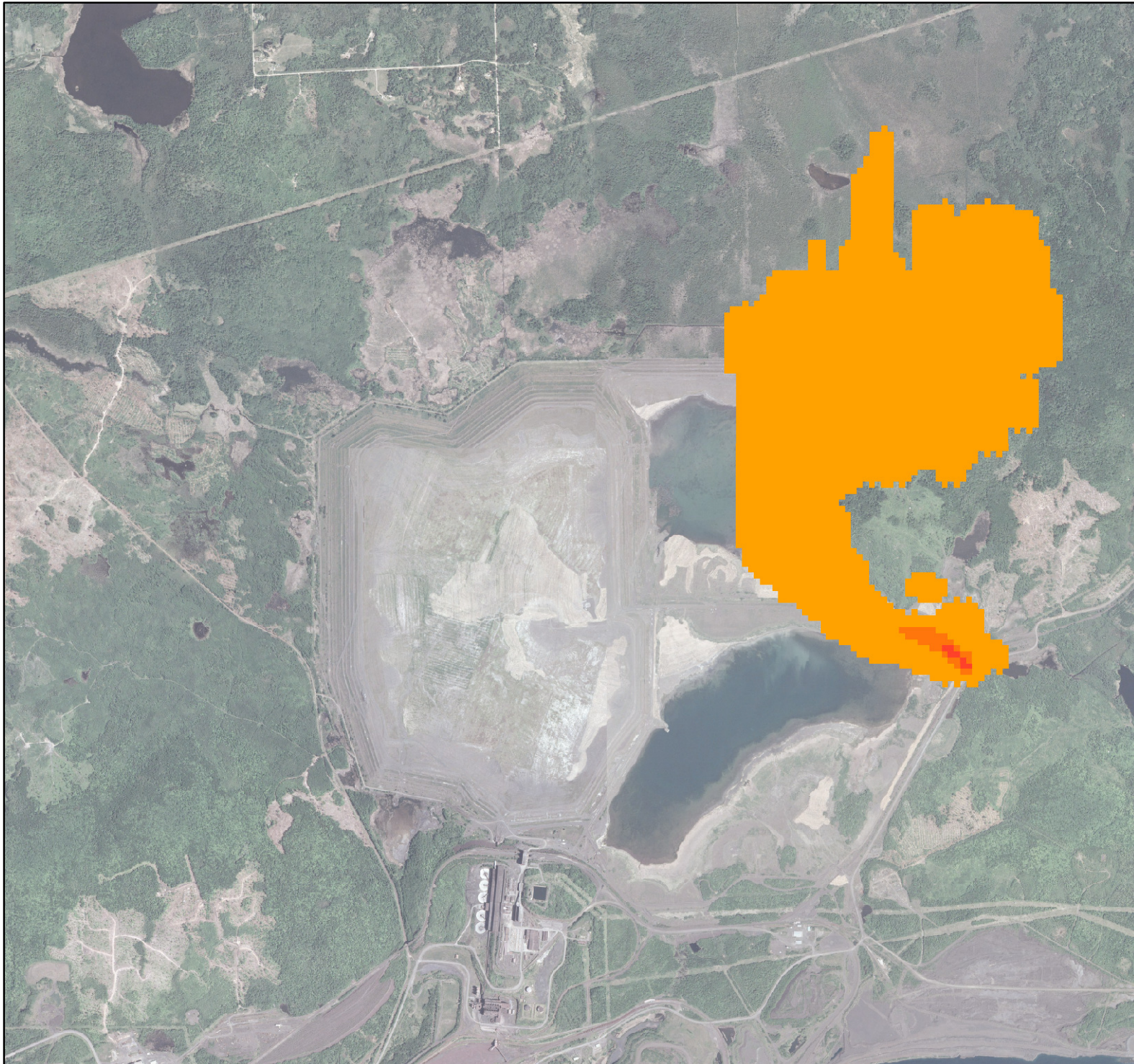


Figure 8-26
Ratio Contribution from
Cell 2E Embankment
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



LTVSMC Crest Cell 1E east
Ratio

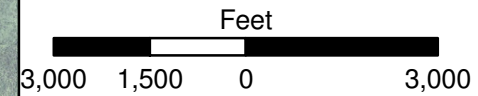


Figure 8-27
Ratio Contribution from
Cell 1E East LTVSMC Crest
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



LTVSMC Crest Cell 1E south

Ratio



Feet

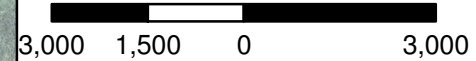


Figure 8-28
Ratio Contribution from
Cell 1E South LTVSMC Crest
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



LTVSMC Crest Cell 2E

Ratio

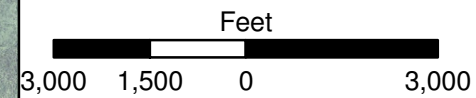


Figure 8-29
Ratio Contribution from
Cell 2E LTVSMC Crest
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Beach Cell 1E east

Ratio



Feet

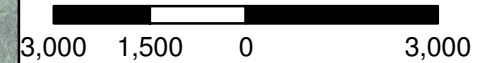
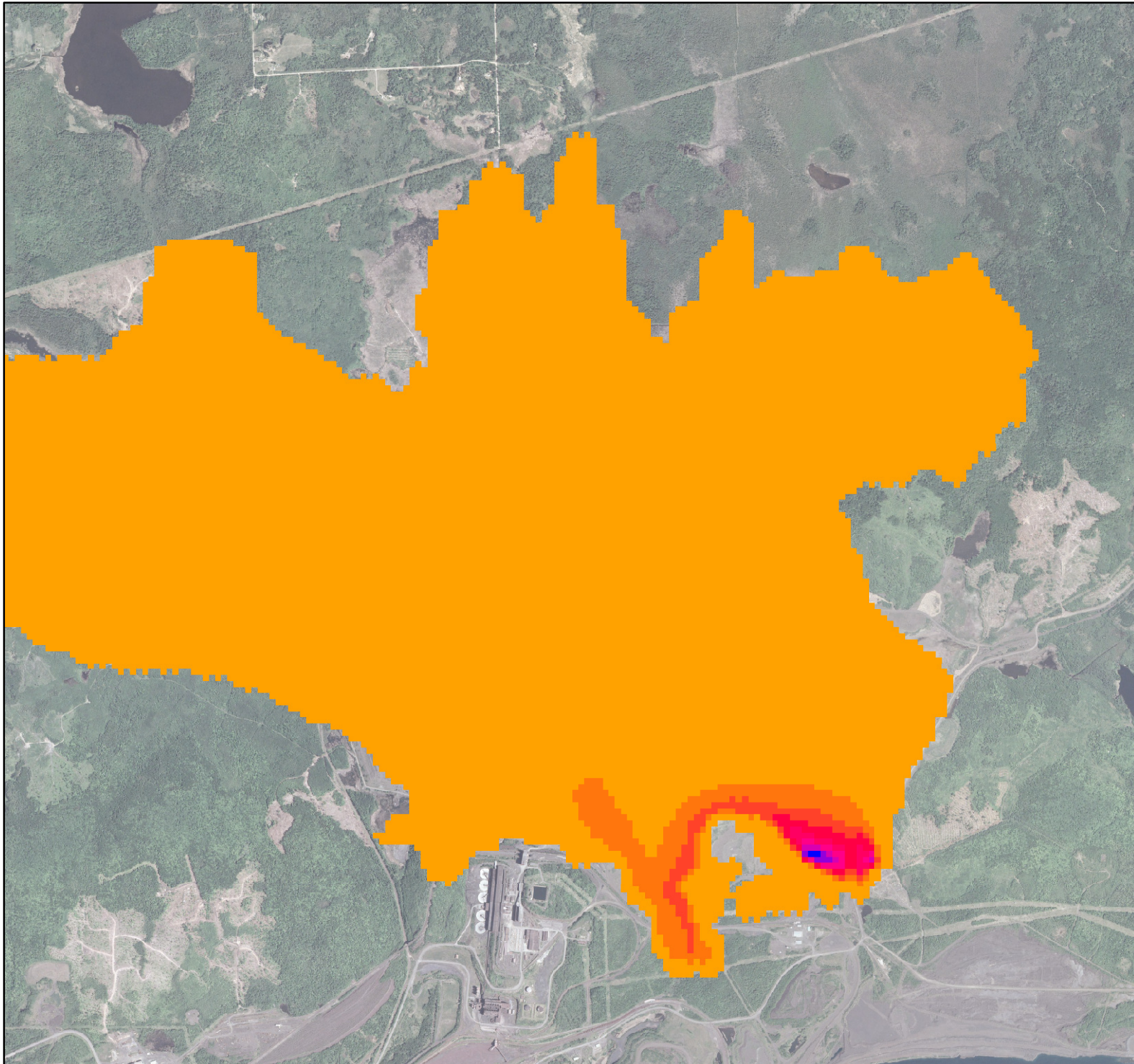


Figure 8-30
Ratio Contribution from
Cell 1E East PolyMet Beach
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Beach Cell 1E south
Ratio

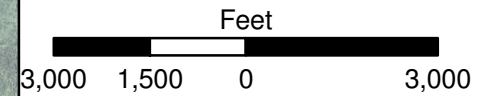
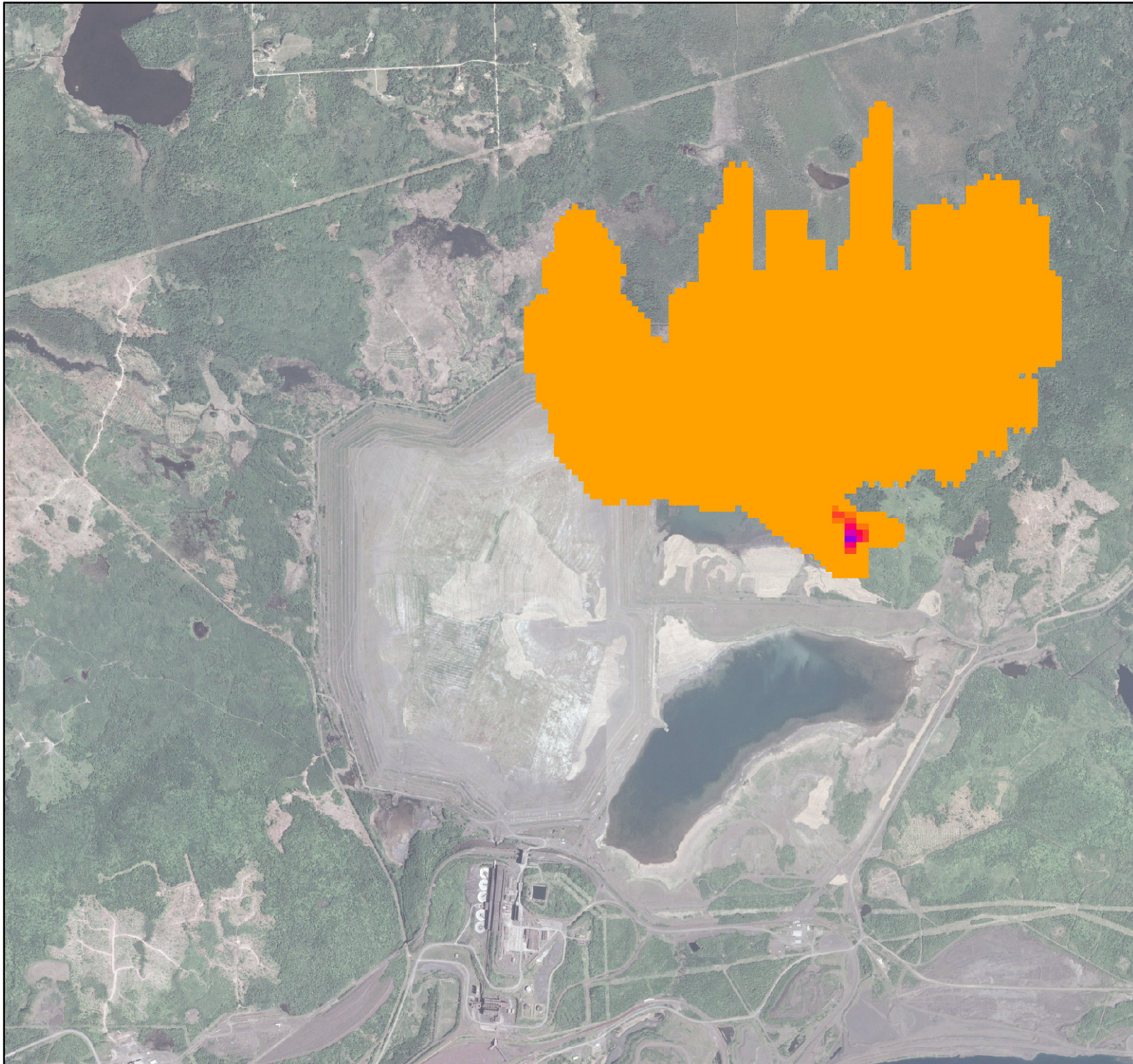


Figure 8-31
Ratio Contribution from
Cell 1E South PolyMet Beach
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Beach Cell 2E

Ratio



Feet

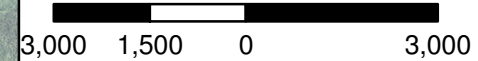
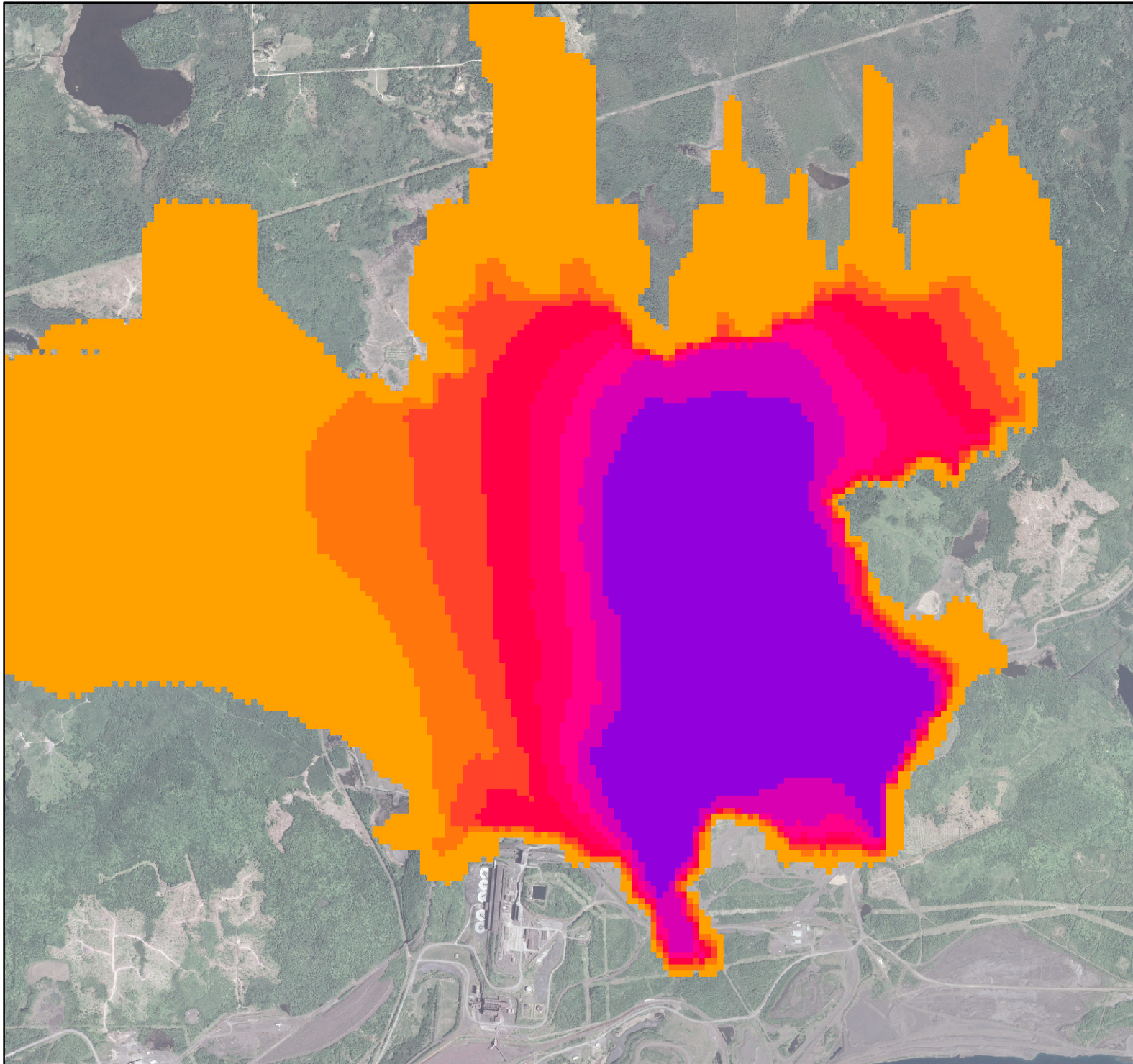


Figure 8-32
Ratio Contribution from
Cell 2E PolyMet Beach
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Pond
Ratio

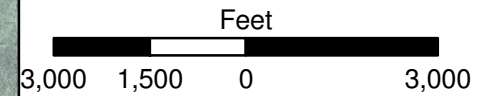
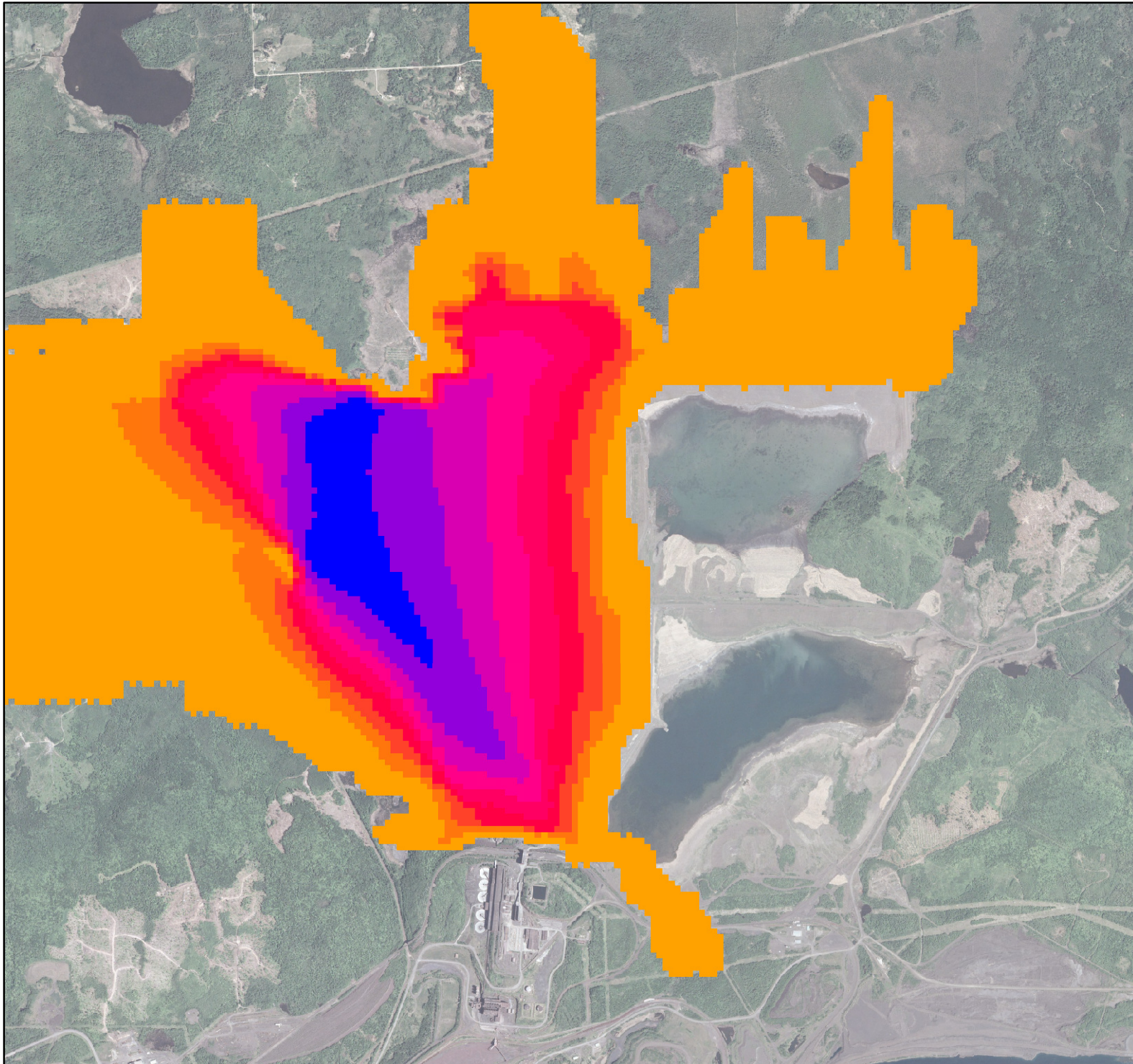


Figure 8-33
Ratio Contribution from
The Pond
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Cell 2W Recharge
Ratio

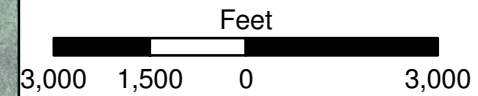
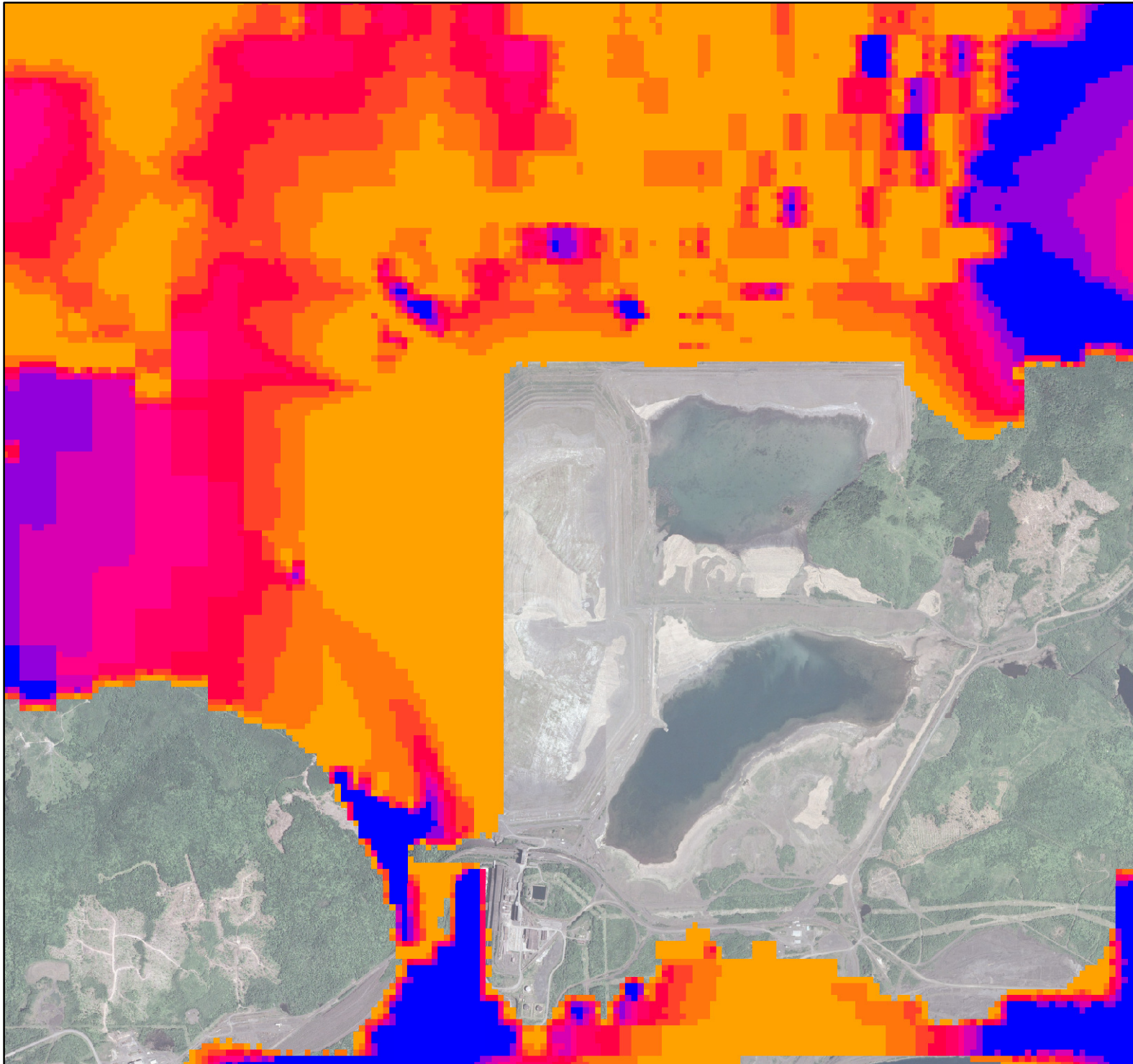


Figure 8-34
Ratio Contribution from
Cell 2W Recharge
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



Background
Ratio



Feet

3,000 1,500 0 3,000

Figure 8-35
Ratio Contribution from
Background Areas
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

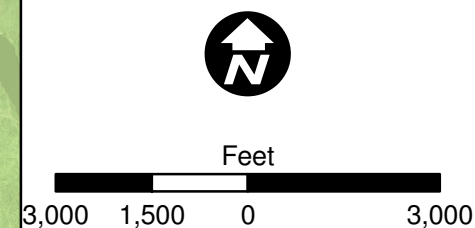
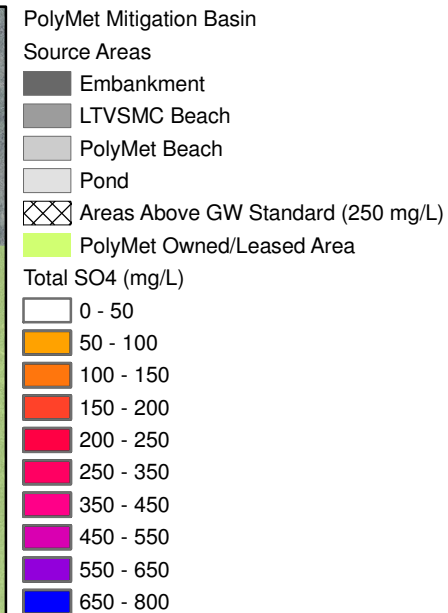
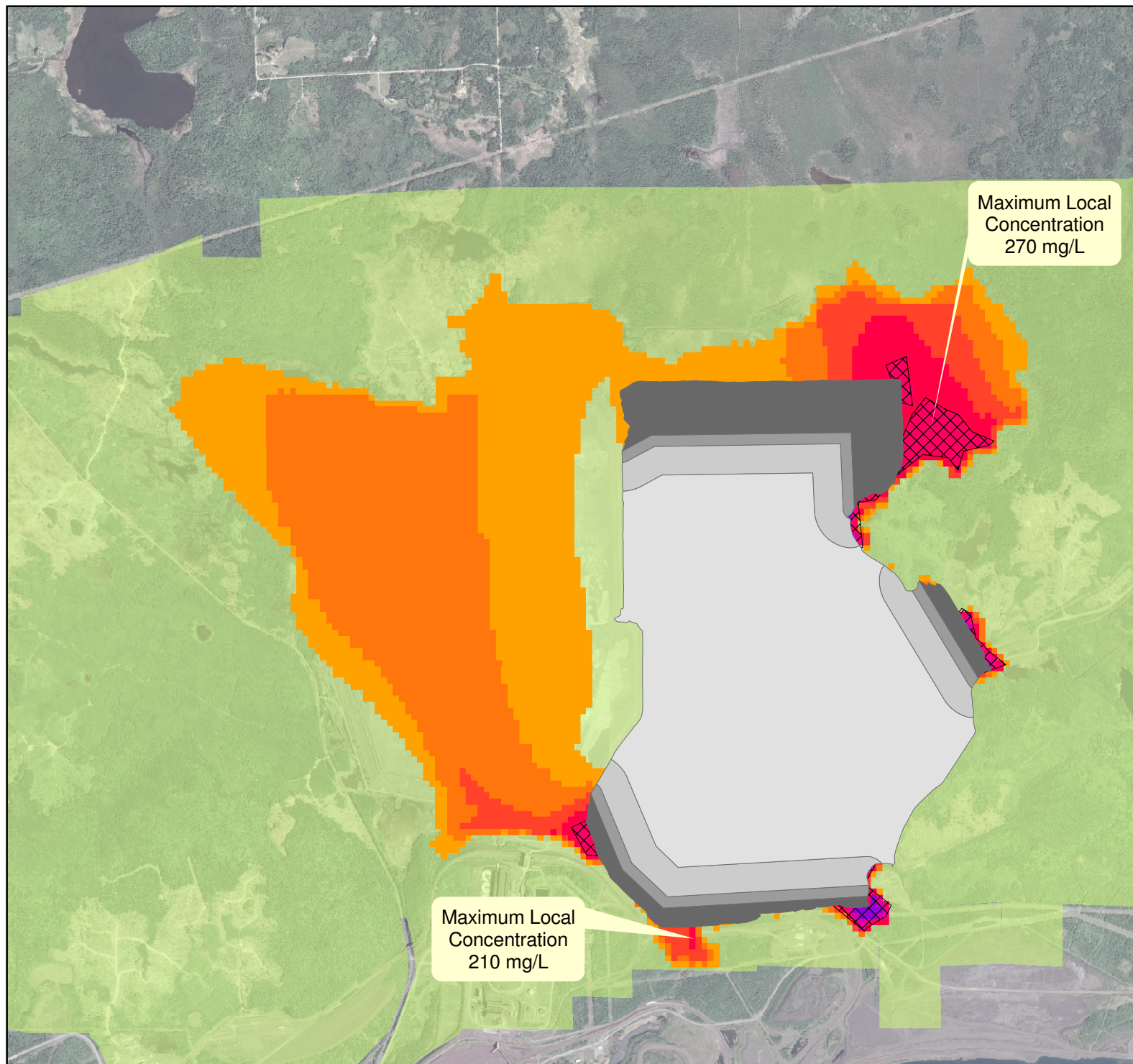


Figure 8-36
Tailings Basin Mitigation
SO4 Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

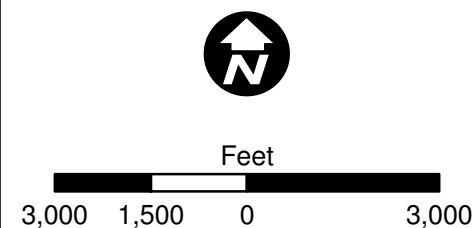
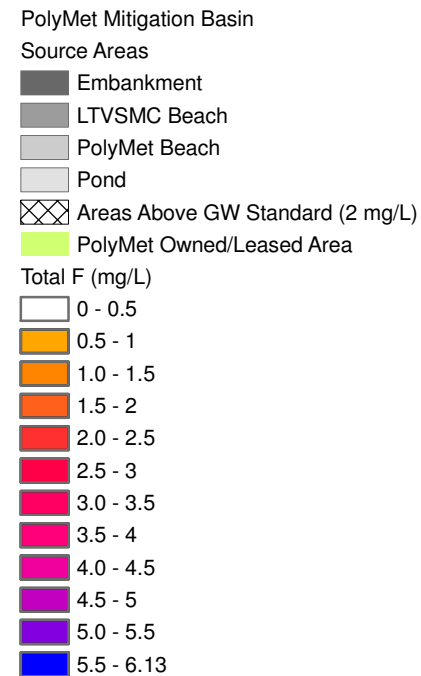
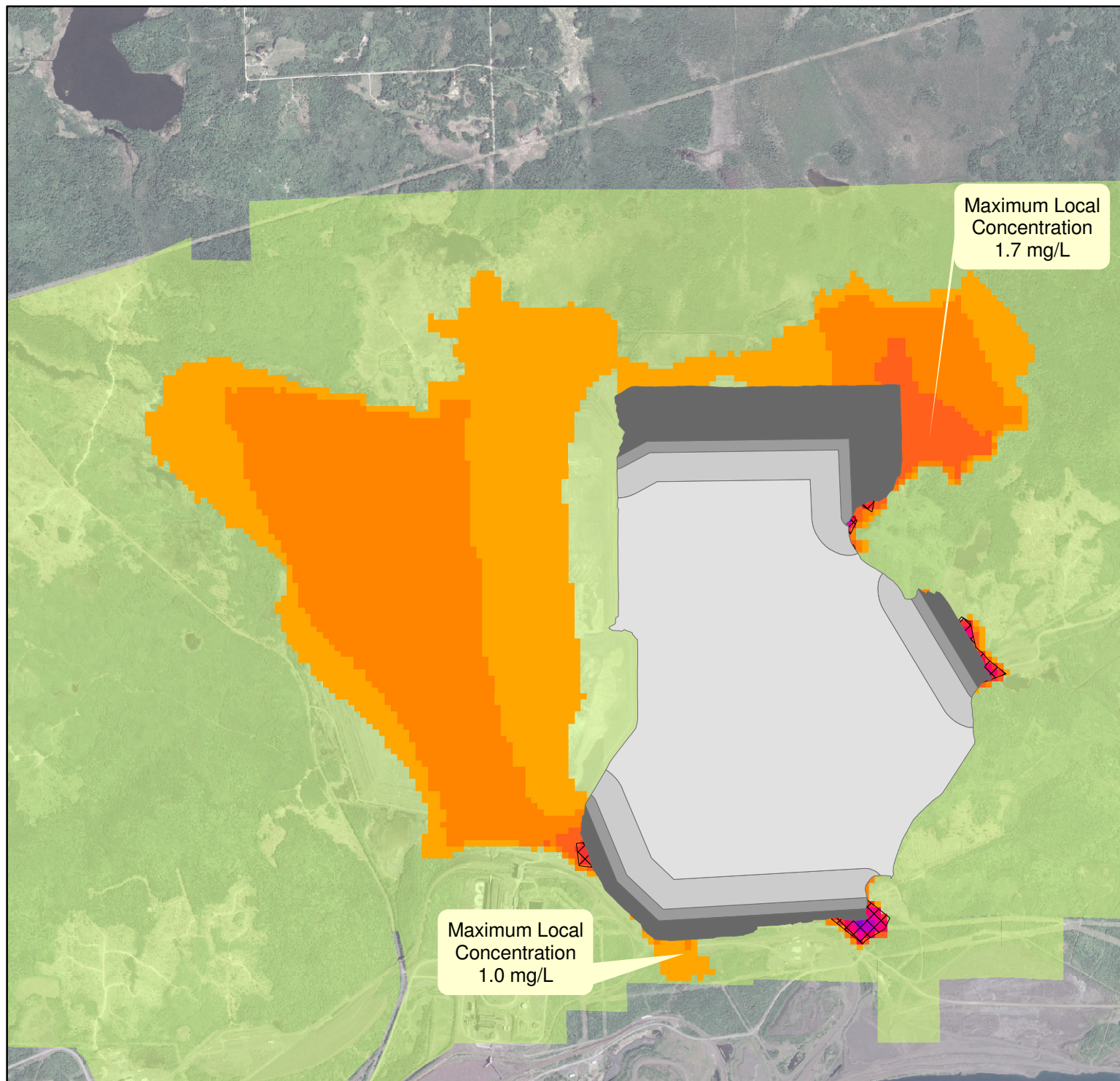
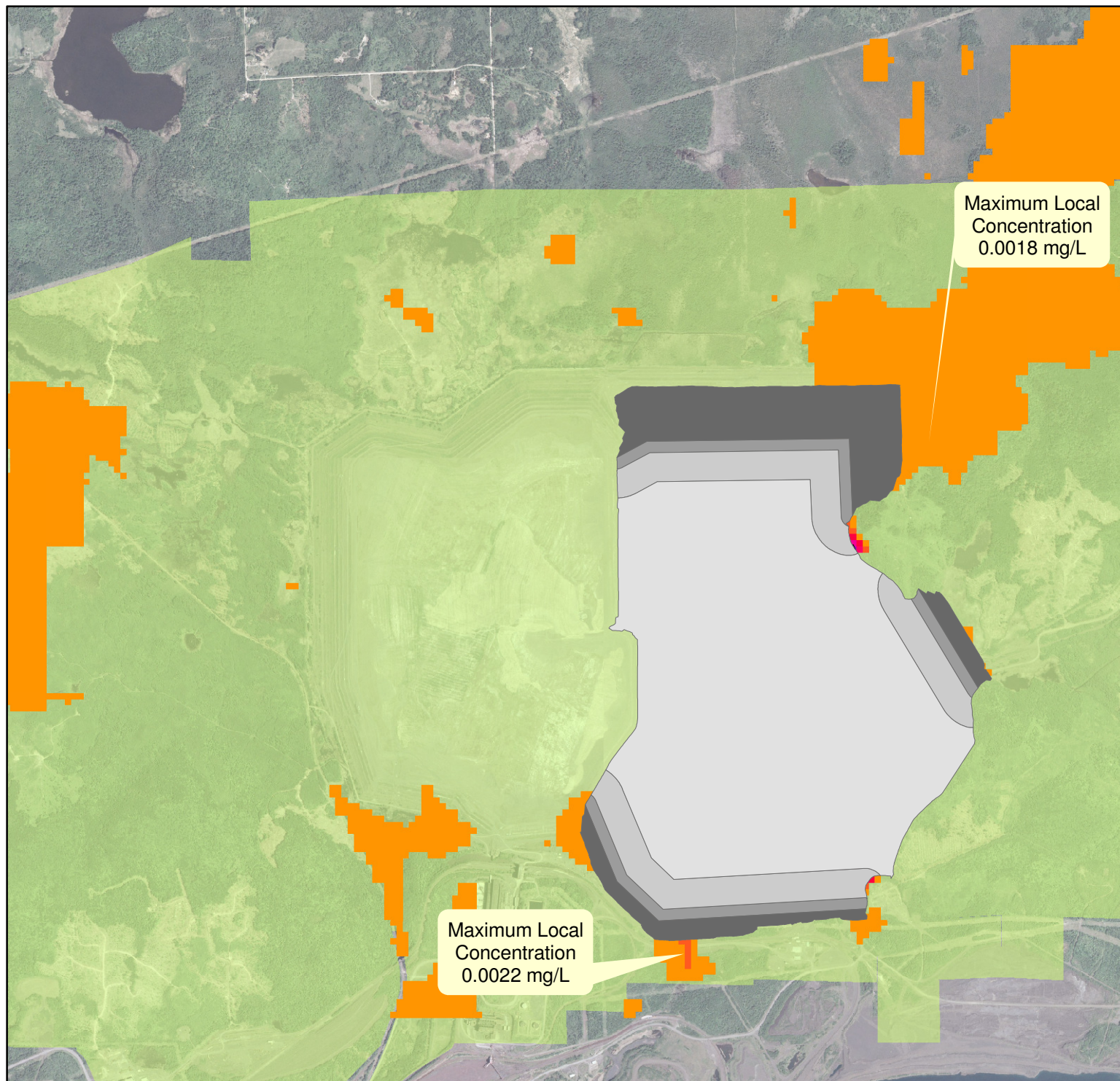


Figure 8-37
Tailings Basin Mitigation
Fluoride Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.006 mg/L)
- Areas Above SW Standard (0.031 mg/L)
- PolyMet Owned/Leased Area

Total Sb (mg/L)

- 0.000 - 0.001
- 0.001 - 0.002
- 0.002 - 0.003
- 0.003 - 0.004
- 0.004 - 0.005
- 0.005 - 0.006
- 0.006 - 0.007
- 0.007 - 0.0075



Feet

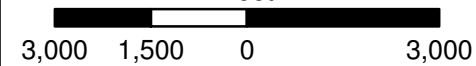


Figure 8-38
Tailings Basin Mitigation
Antimony Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

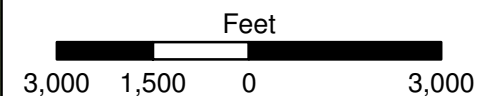
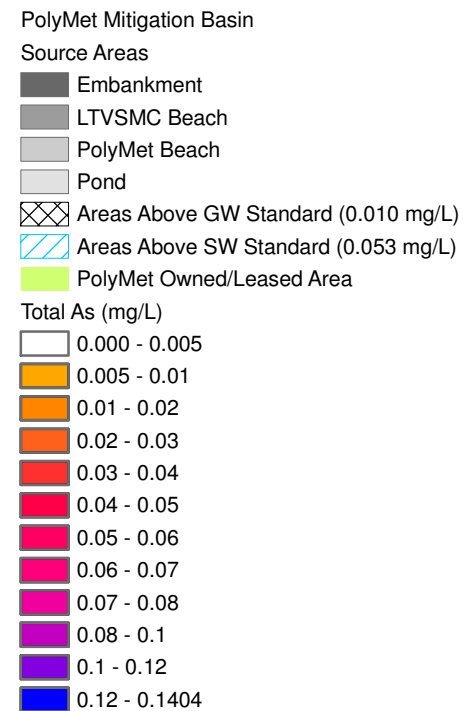
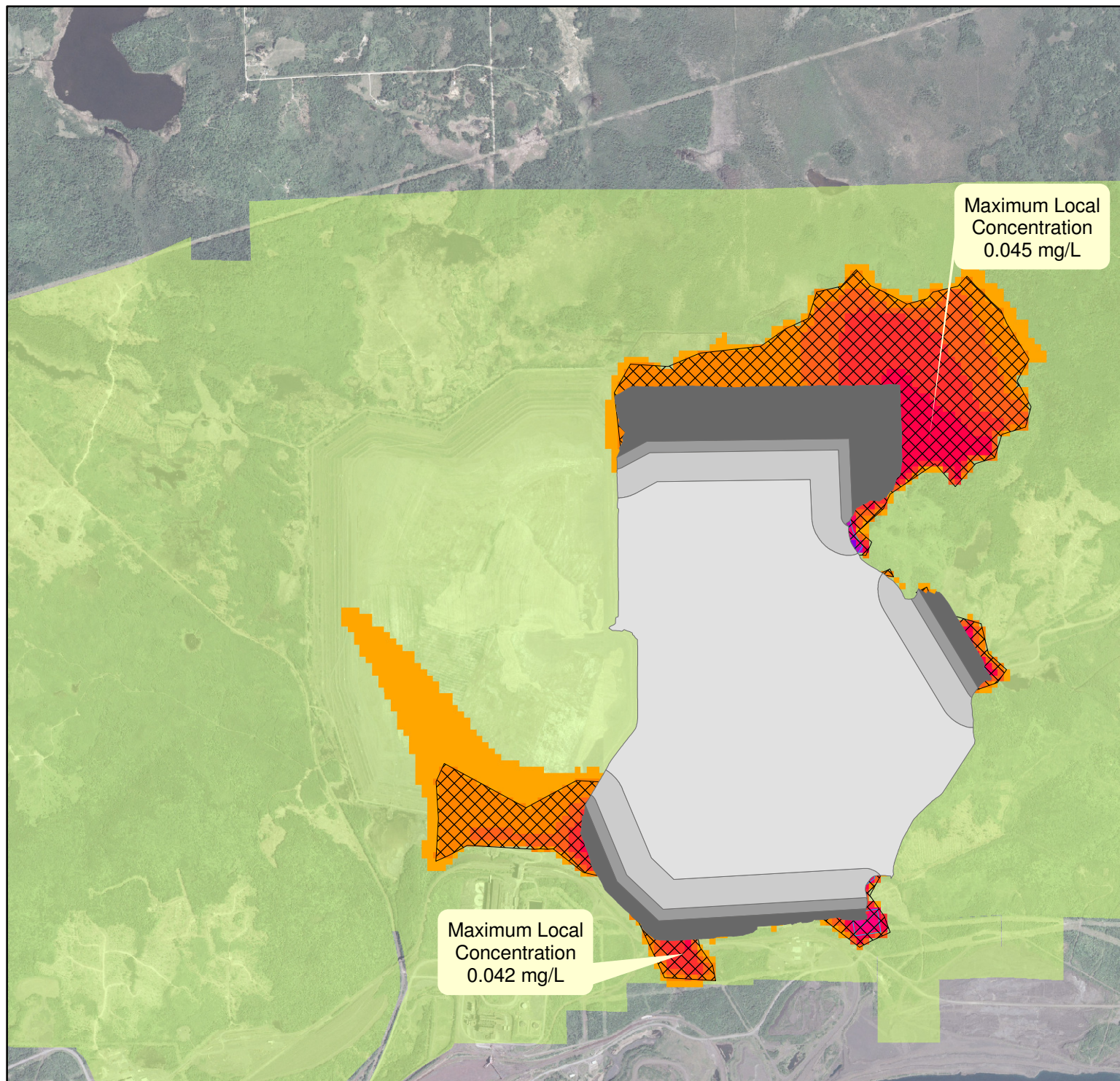


Figure 8-39
Tailings Basin Mitigation
Arsenic Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN

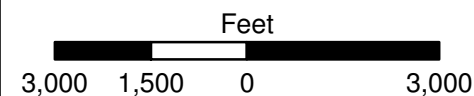
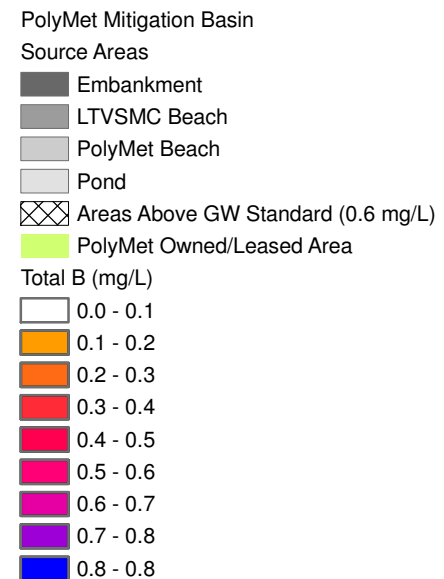
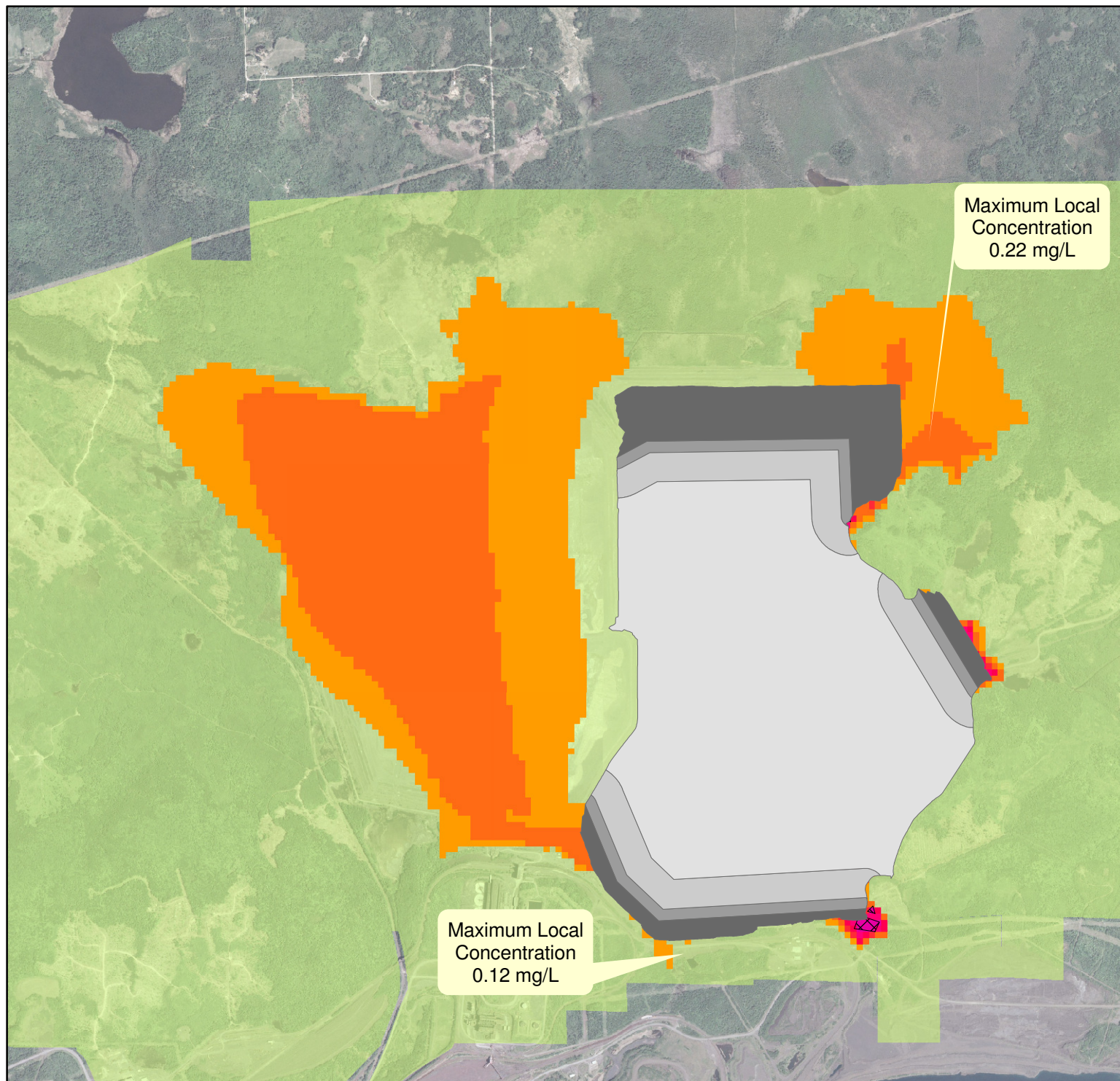
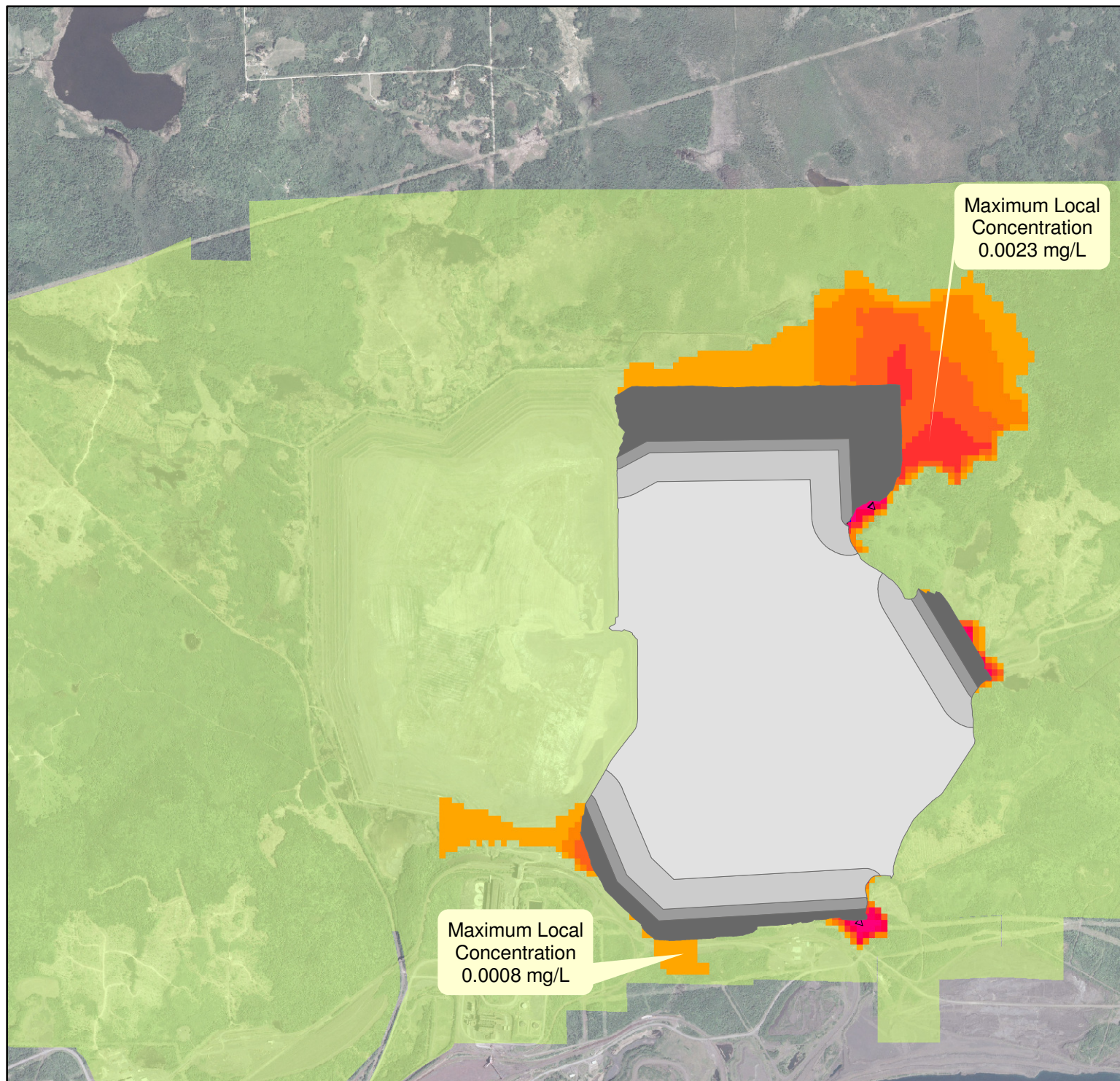


Figure 8-40
Tailings Basin Mitigation
Boron Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.004 mg/L)
- Areas Above SW Standard (0.006 mg/L)
- PolyMet Owned/Leased Area

Total Cd (mg/L)

- 0.000 - 0.0005
- 0.0005 - 0.001
- 0.001 - 0.0015
- 0.0015 - 0.002
- 0.002 - 0.0025
- 0.0025 - 0.003
- 0.003 - 0.0035
- 0.0035 - 0.004
- 0.004 - 0.0045
- 0.0045 - 0.005
- 0.005 - 0.0055
- 0.0055 - 0.005779



Feet

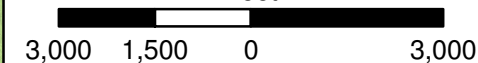
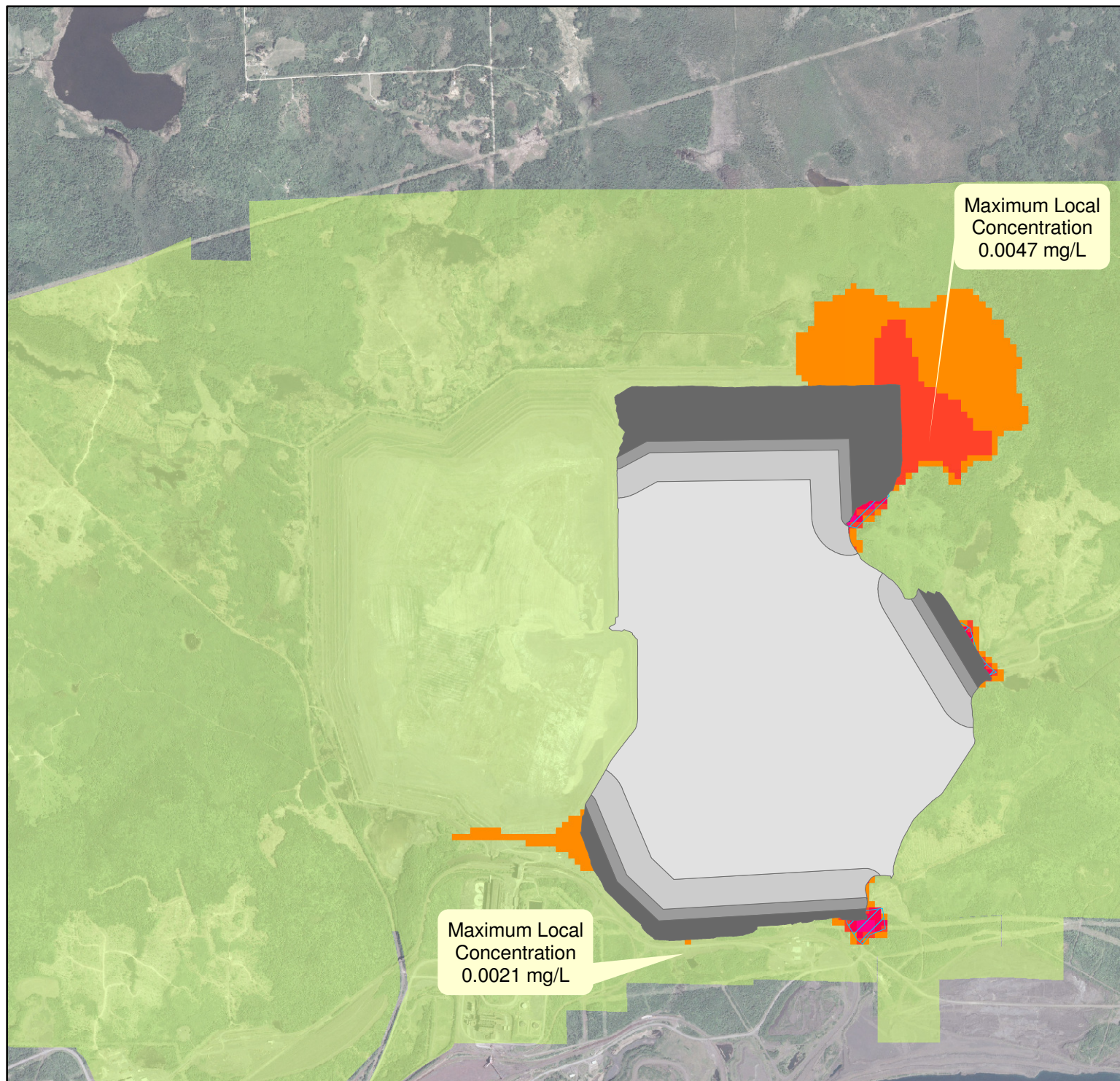


Figure 8-41
Tailings Basin Mitigation
Cadmium Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above SW Standard (0.005 mg/L)
- PolyMet Owned/Leased Area

Total Co (mg/L)

- 0.000 - 0.002
- 0.002 - 0.004
- 0.004 - 0.006
- 0.006 - 0.008
- 0.008 - 0.01
- 0.01 - 0.012
- 0.012 - 0.014



Feet

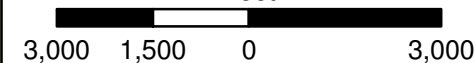
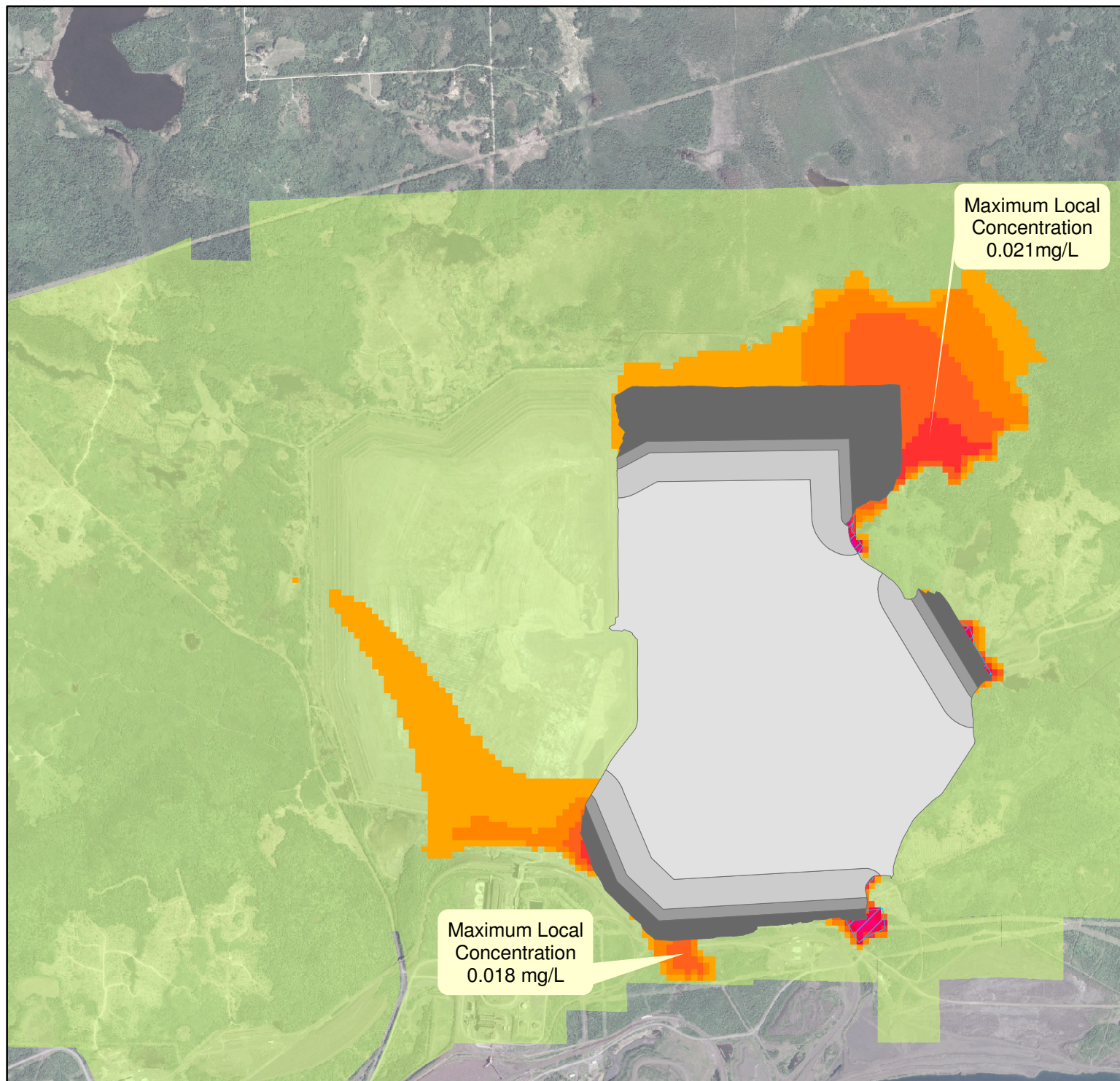


Figure 8-42
Tailings Basin Mitigation
Cobalt Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (1 mg/L)
- Areas Above SW Standard (0.023 mg/L)
- PolyMet Owned/Leased Area

Total Cu (mg/L)

- 0.000 - 0.005
- 0.005 - 0.01
- 0.01 - 0.015
- 0.015 - 0.02
- 0.02 - 0.025
- 0.025 - 0.03
- 0.03 - 0.035
- 0.035 - 0.04
- 0.04 - 0.045
- 0.045 - 0.05
- 0.05 - 0.055
- 0.055 - 0.0609



Feet

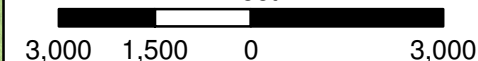
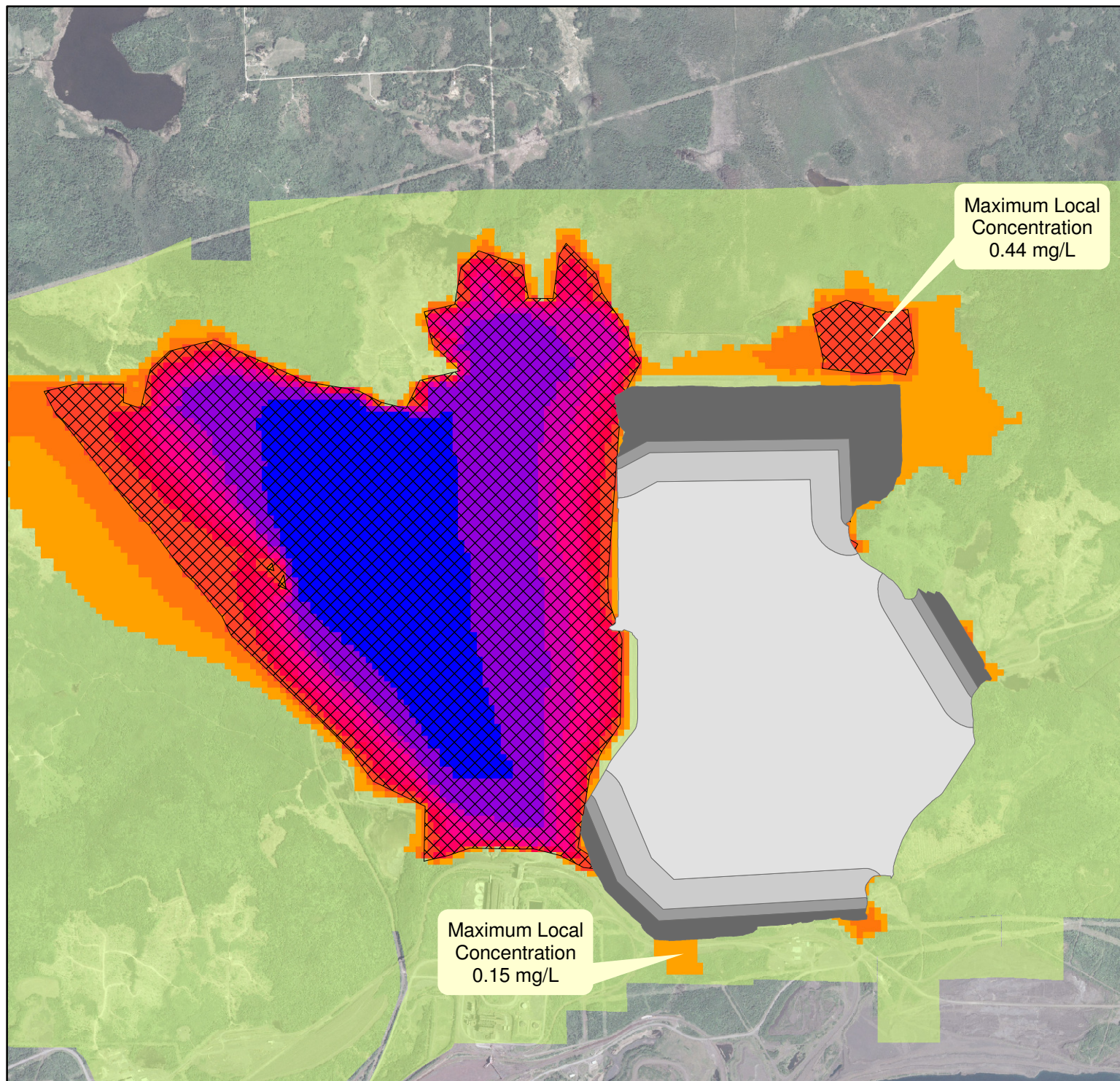


Figure 8-43
Tailings Basin Mitigation
Copper Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.3 mg/L)
- PolyMet Owned/Leased Area

Total Fe (mg/L)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.5
- 0.5 - 0.7
- 0.7 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 3
- 3.0 - 3.945

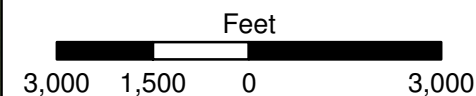
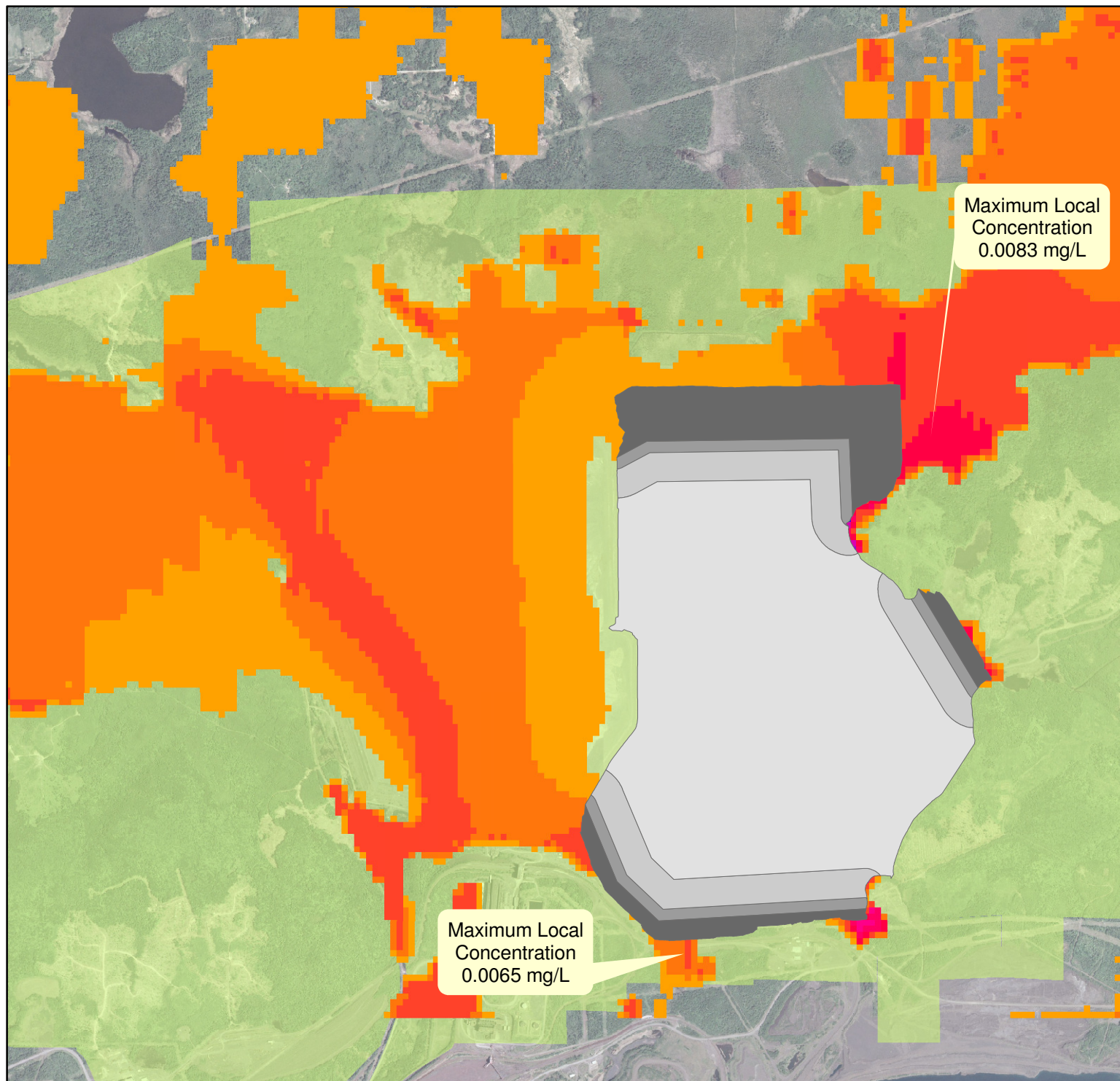


Figure 8-44
Tailings Basin Mitigation
Iron Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.1 mg/L)
- Areas Above SW Standard (0.127 mg/L)
- PolyMet Owned/Leased Area

Total Ni (mg/L)

- 0.000 - 0.002
- 0.002 - 0.004
- 0.004 - 0.006
- 0.006 - 0.008
- 0.008 - 0.01
- 0.01 - 0.012
- 0.012 - 0.014
- 0.014 - 0.016
- 0.016 - 0.018
- 0.018 - 0.020264341

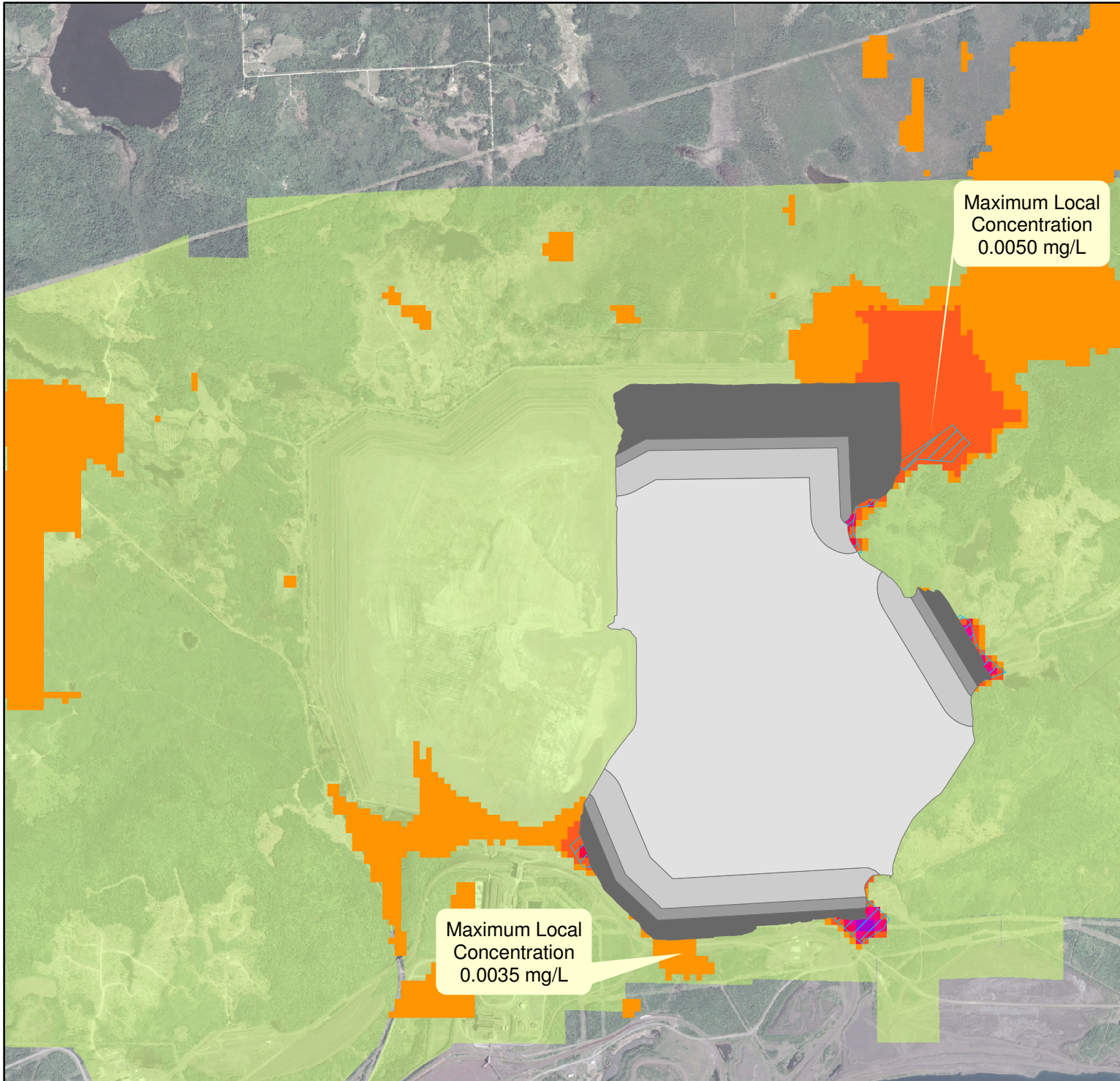


Feet

3,000 1,500 0 3,000

Figure 8-45
Tailings Basin Mitigation
Nickel Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.030 mg/L)
- Areas Above SW Standard (0.005 mg/L)
- PolyMet Owned/Leased Area

Total Se (mg/L)

- 0.000 - 0.002
- 0.002 - 0.004
- 0.004 - 0.006
- 0.006 - 0.008
- 0.008 - 0.01
- 0.01 - 0.012
- 0.012 - 0.014
- 0.014 - 0.016454145

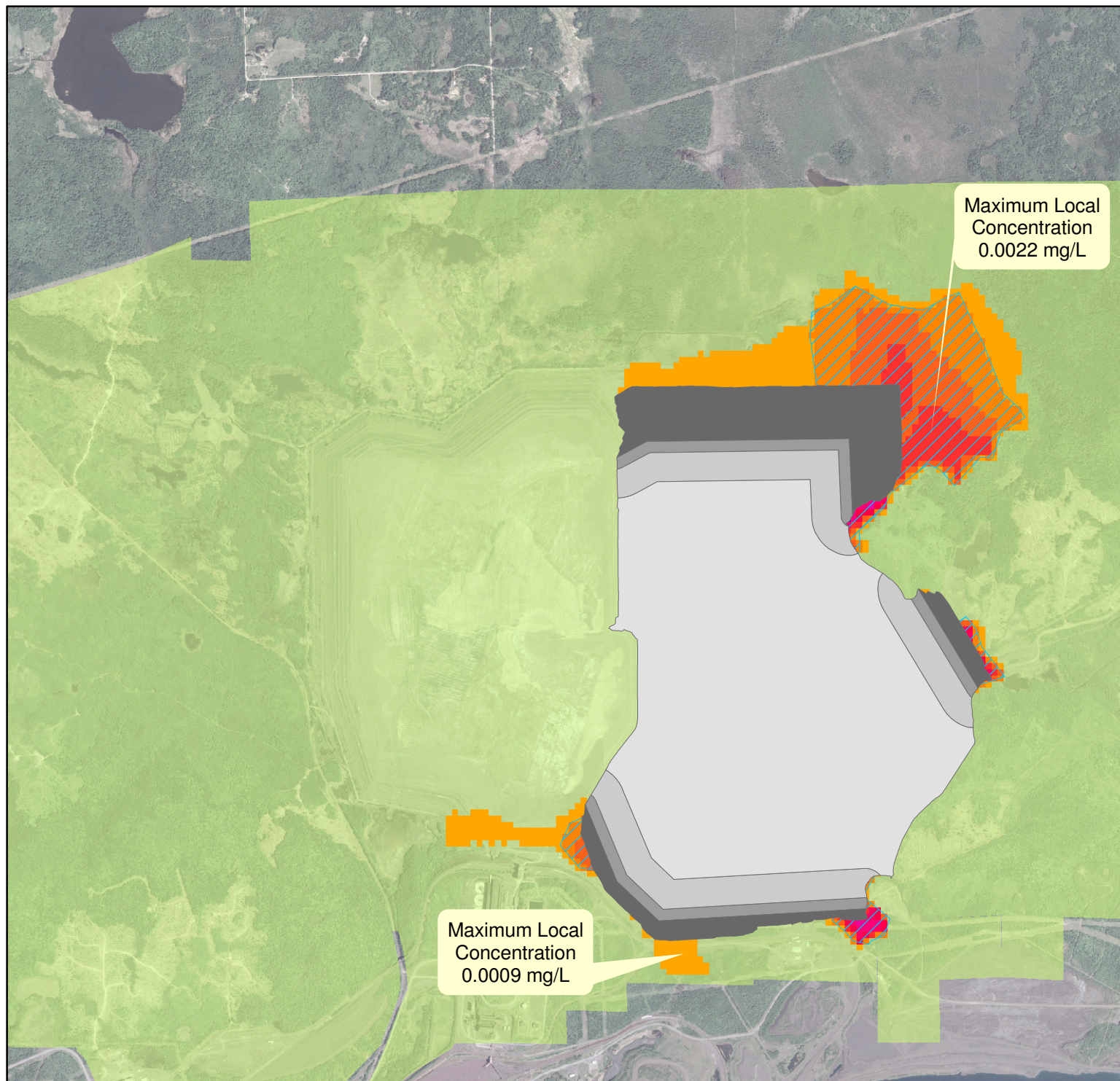


Feet

3,000 1,500 0 3,000

Figure 8-46
Tailings Basin Mitigation
Selenium Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN



PolyMet Mitigation Basin

Source Areas

- Embankment
- LTVSMC Beach
- PolyMet Beach
- Pond
- Areas Above GW Standard (0.03 mg/L)
- Areas Above SW Standard (0.001 mg/L)
- PolyMet Owned/Leased Area

Total Ag (mg/L)

- 0.000 - 0.0005
- 0.0005 - 0.001
- 0.001 - 0.0015
- 0.0015 - 0.002
- 0.002 - 0.0025
- 0.0025 - 0.003
- 0.003 - 0.0035
- 0.0035 - 0.004
- 0.004 - 0.0045
- 0.0045 - 0.005
- 0.005 - 0.0055
- 0.0055 - 0.005833223



Feet

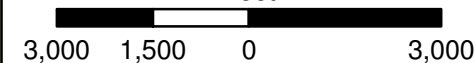


Figure 8-47
Tailings Basin Mitigation
Silver Concentrations Closure
Geotechnical Mitigation

NorthMet Project
PolyMet Mining Inc.
Hoyt Lakes, MN