



Date: 2026-06-29

**Written Submission from
Orano Canada Inc.**

**Mémoire d'
Orano Canada Inc.**

In the matter of

À l'égard d'

Orano Canada Inc.

Application to renew the McClean Lake
Operating Licence for 2-year term

Orano Canada Inc.

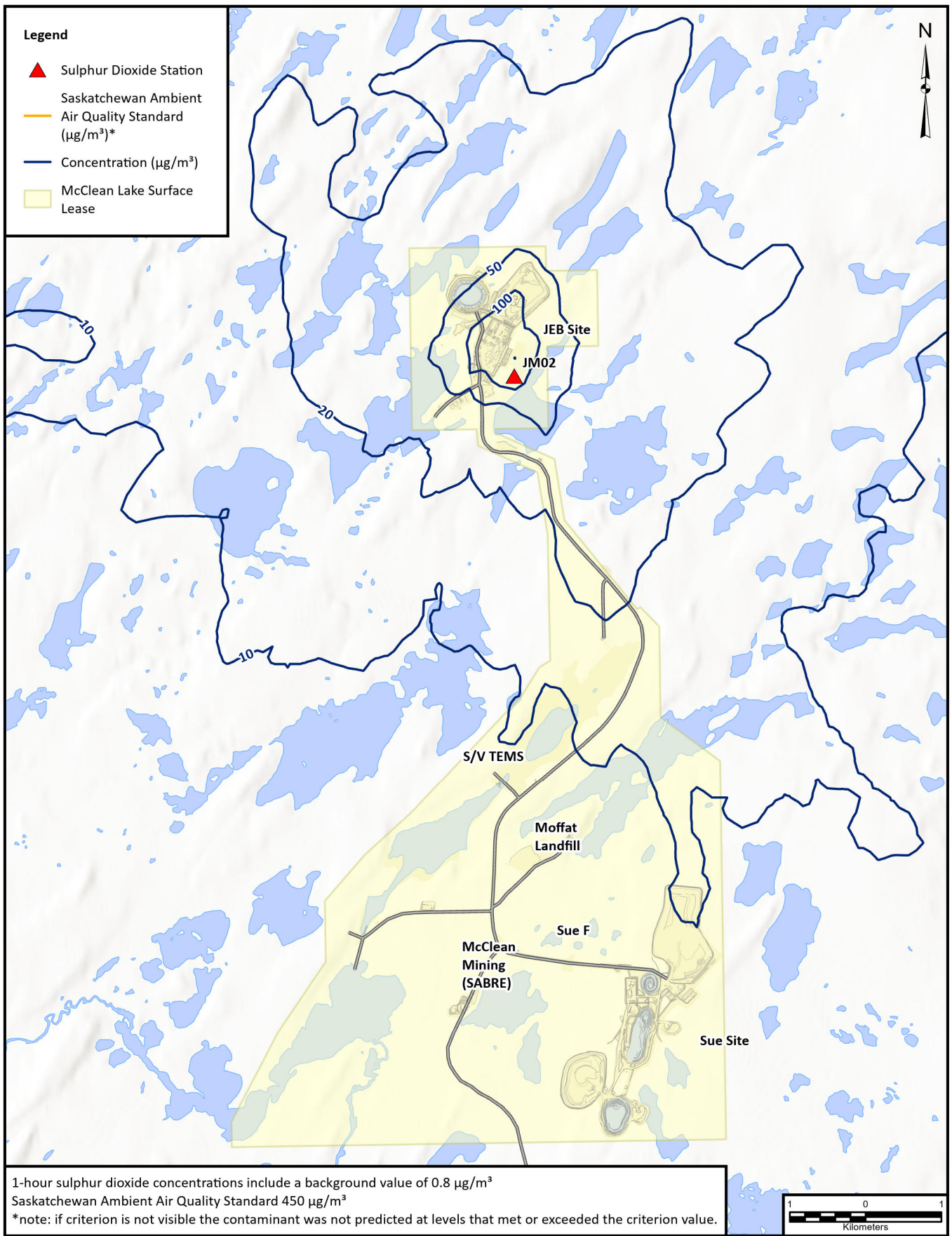
Demande pour le renouvellement du
permis d'exploitation de McClean Lake
pour une période de deux ans

**Hearing in writing based on written
submissions**

**Audience par écrit fondée sur des
mémoires**

September 2026

Septembre 2026



Projection: NAD 1983 UTM Zone 13N
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 Date: 2025-11-18 3:37 PM Scale: 1:70,000
 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

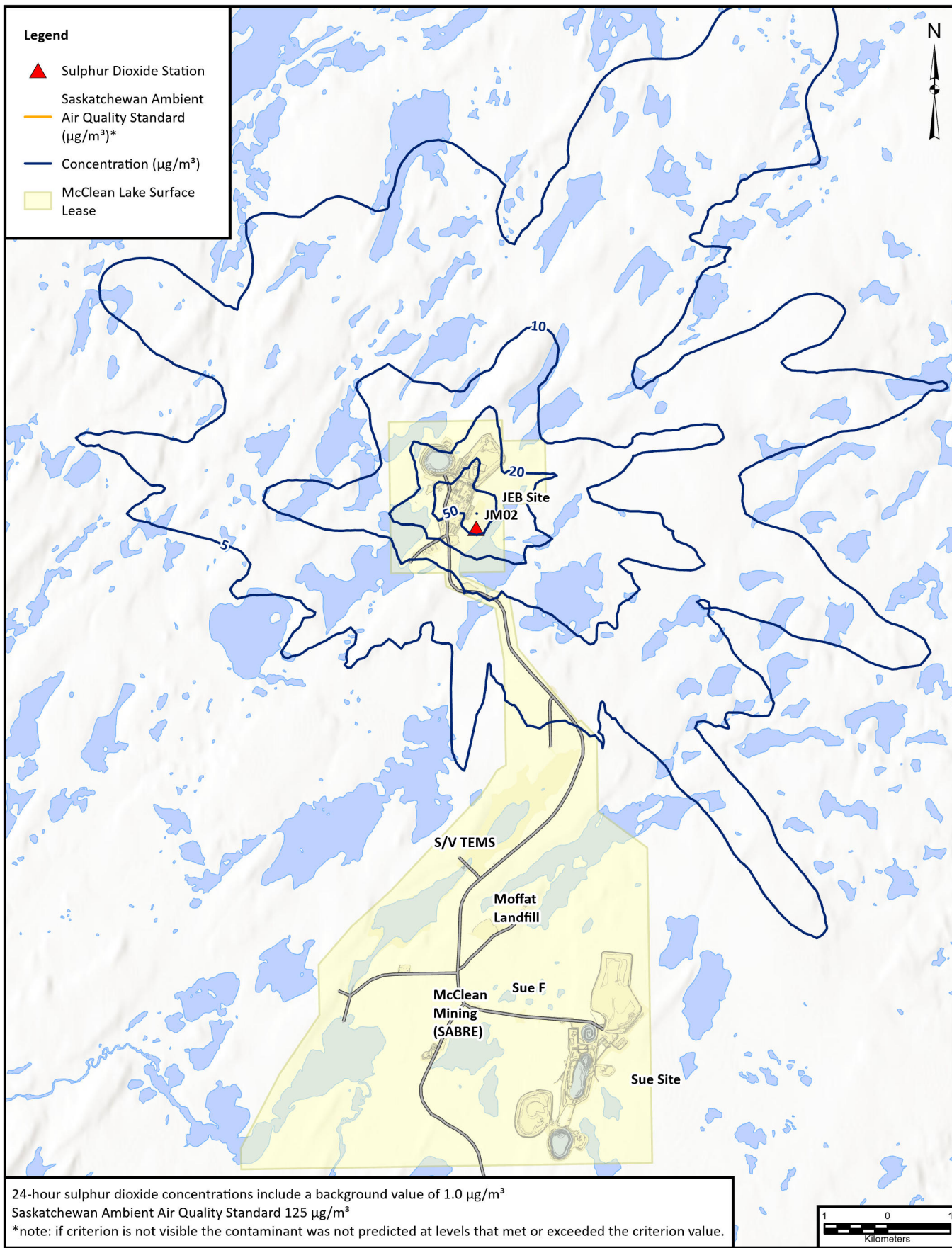
FIGURE 2.3-45

1-HOUR SO_2 CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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McCLEAN LAKE OPERATION

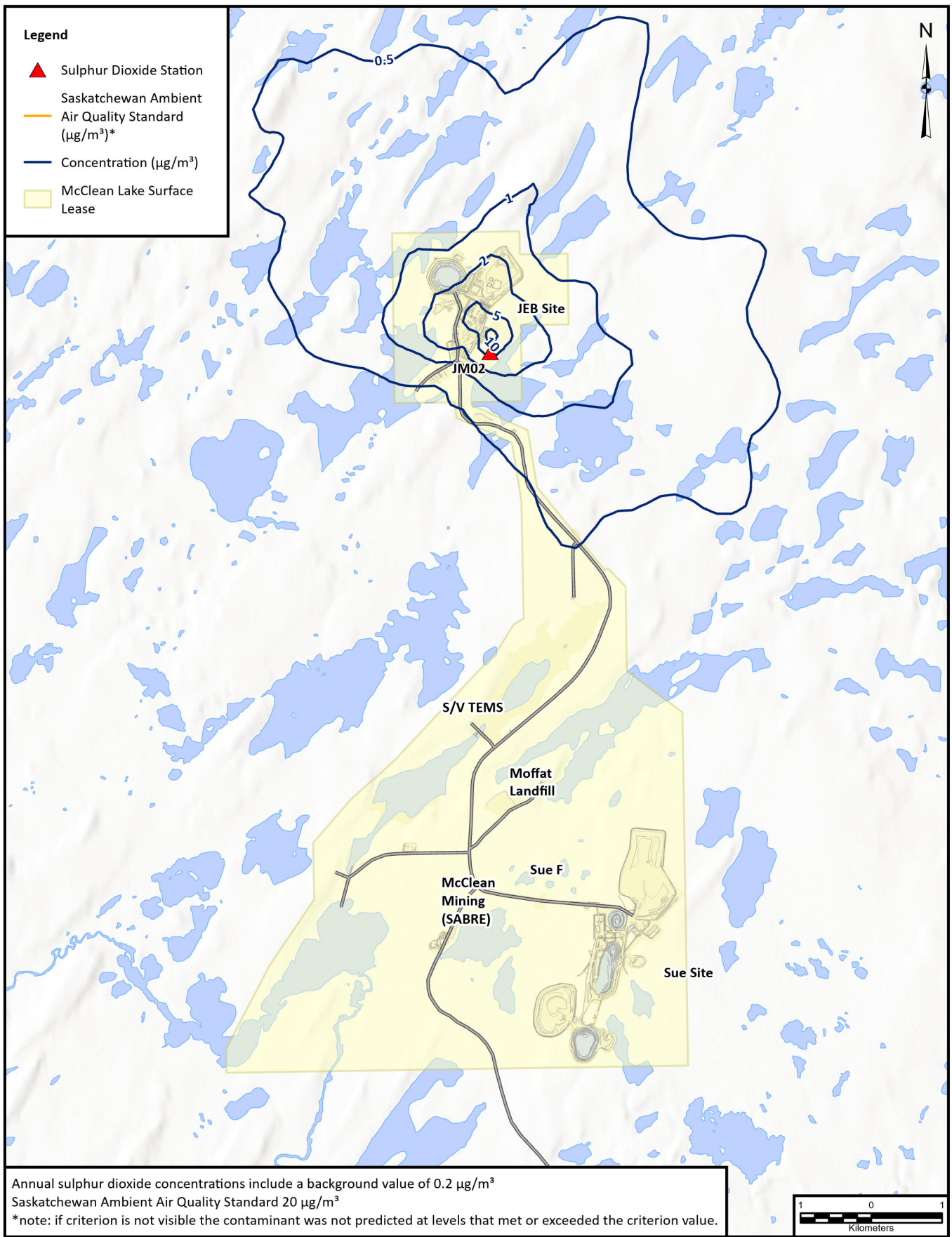
FIGURE 2.3-46

24-HOUR SO_2 CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

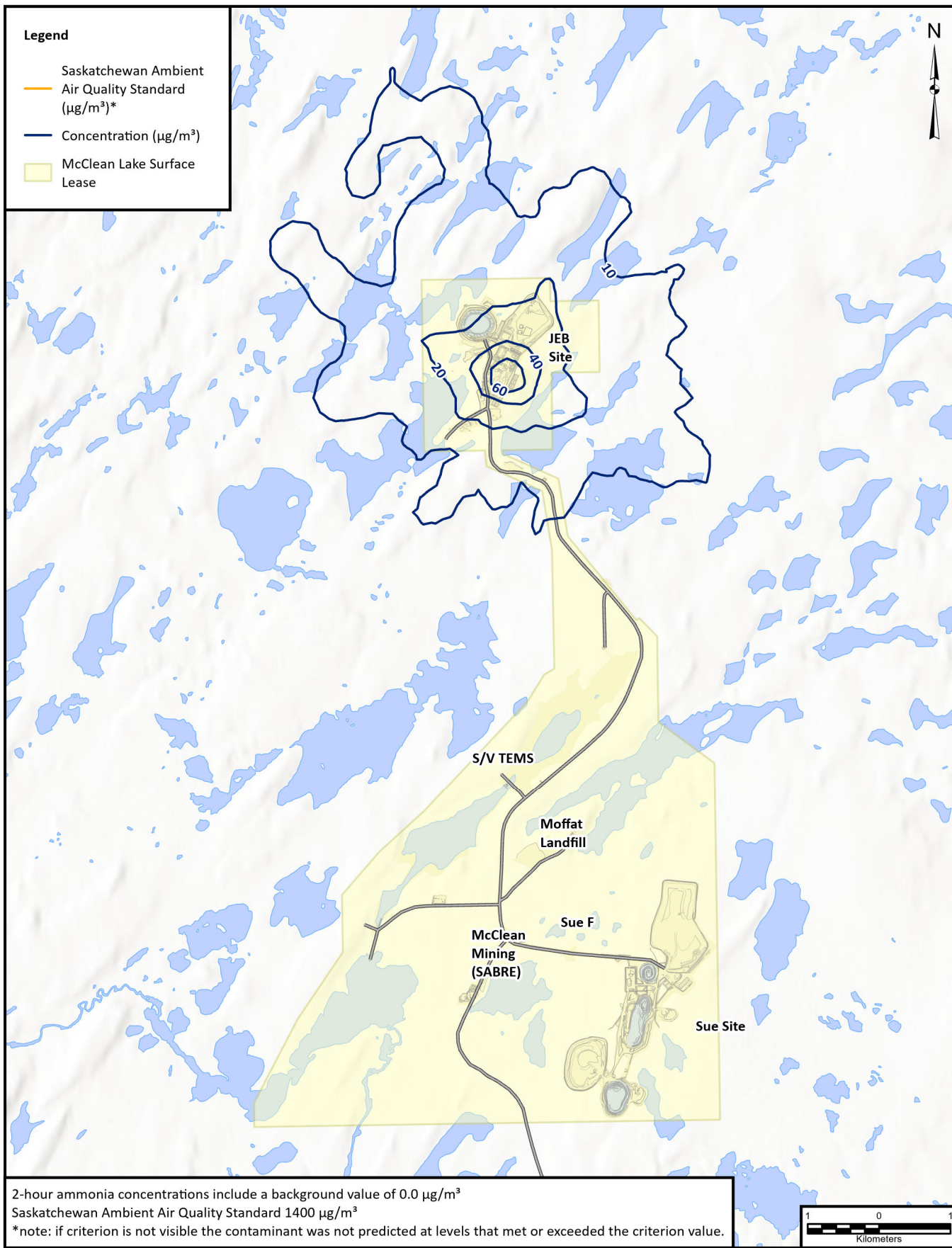
FIGURE 2.3-47

ANNUAL SO₂ CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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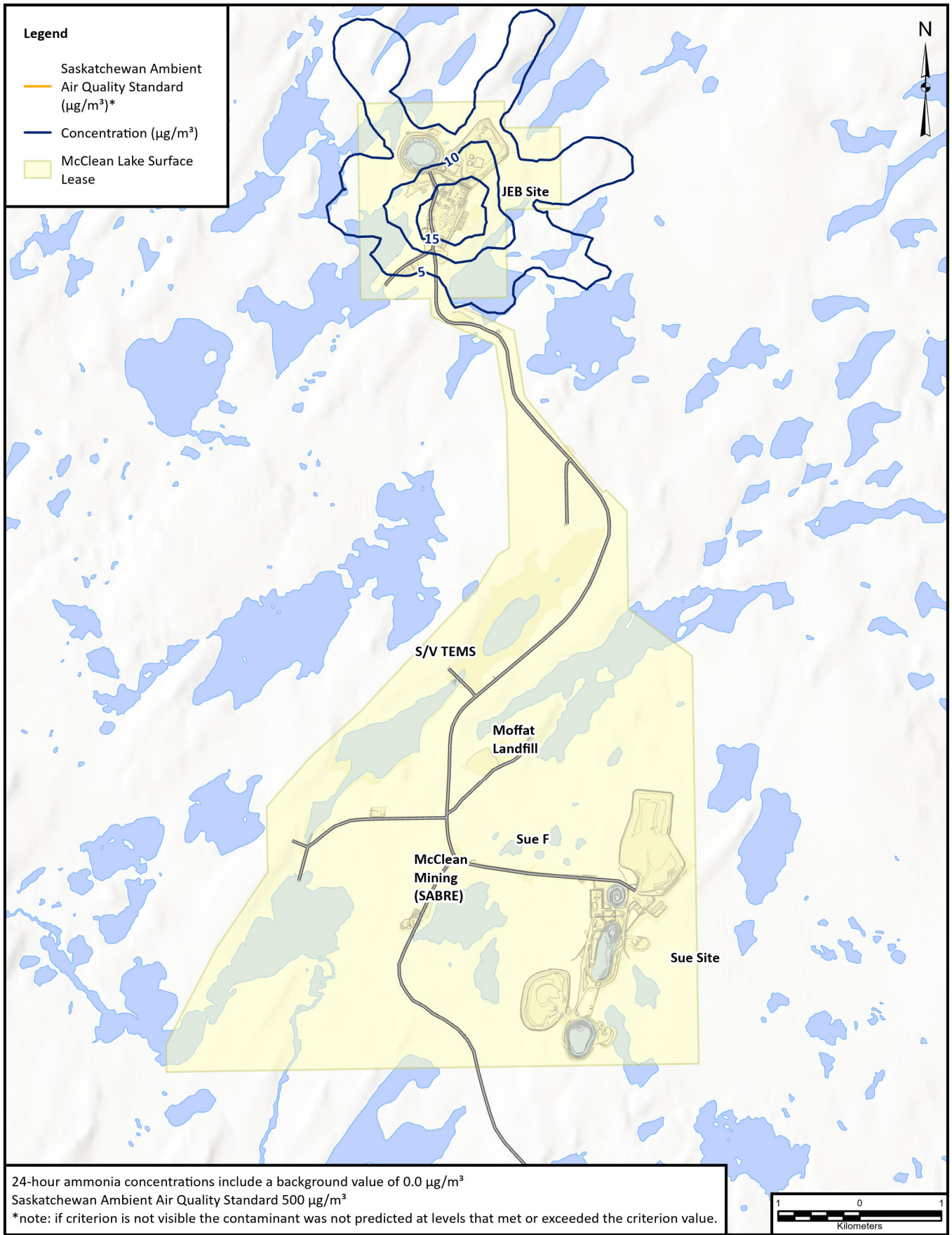
McCLEAN LAKE OPERATION

FIGURE 2.3-48

1-HOUR AMMONIA CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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 Date: 2025-11-18 4:13 PM Scale: 1:65,000
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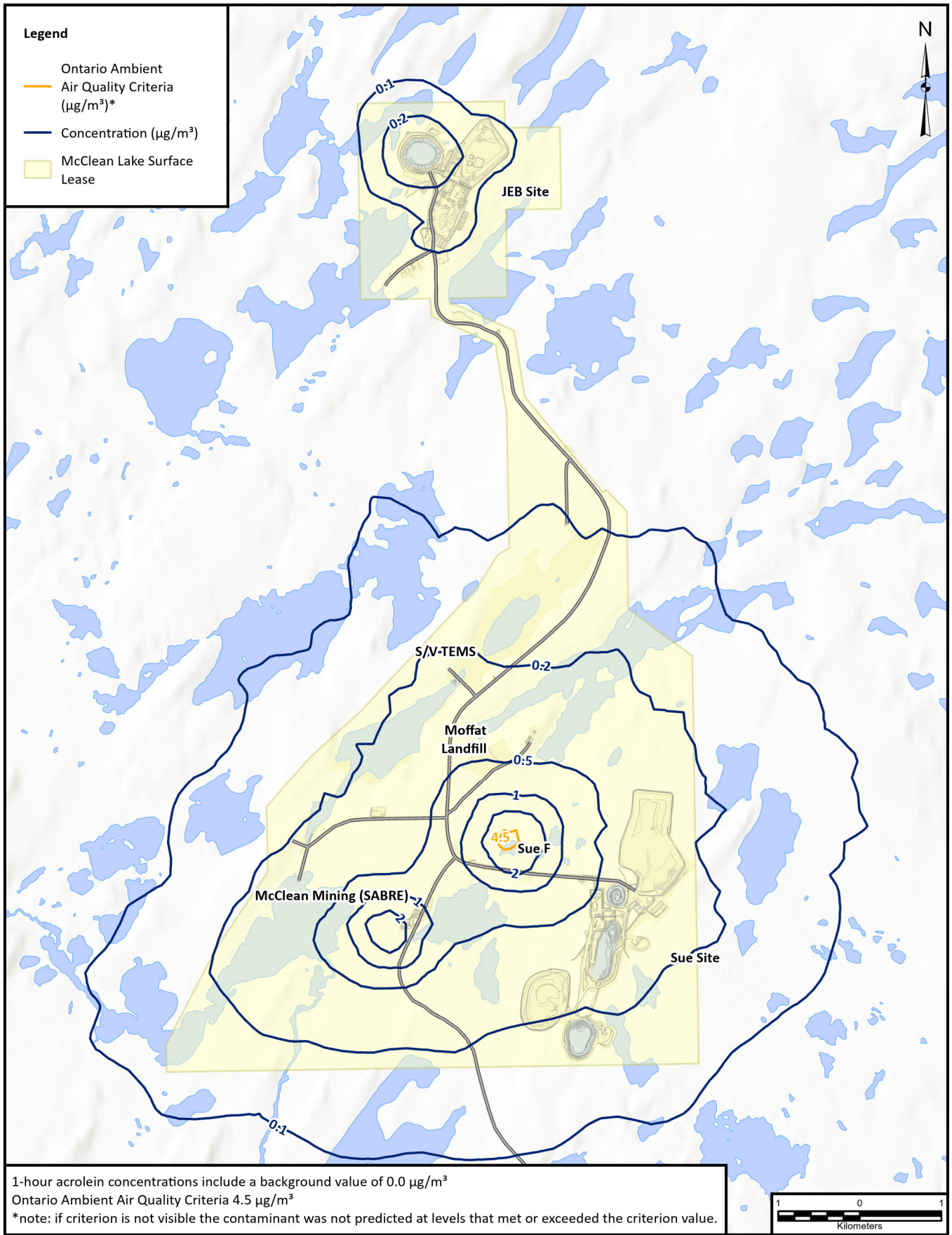
McCLEAN LAKE OPERATION

FIGURE 2.3-49

24-HOUR AMMONIA CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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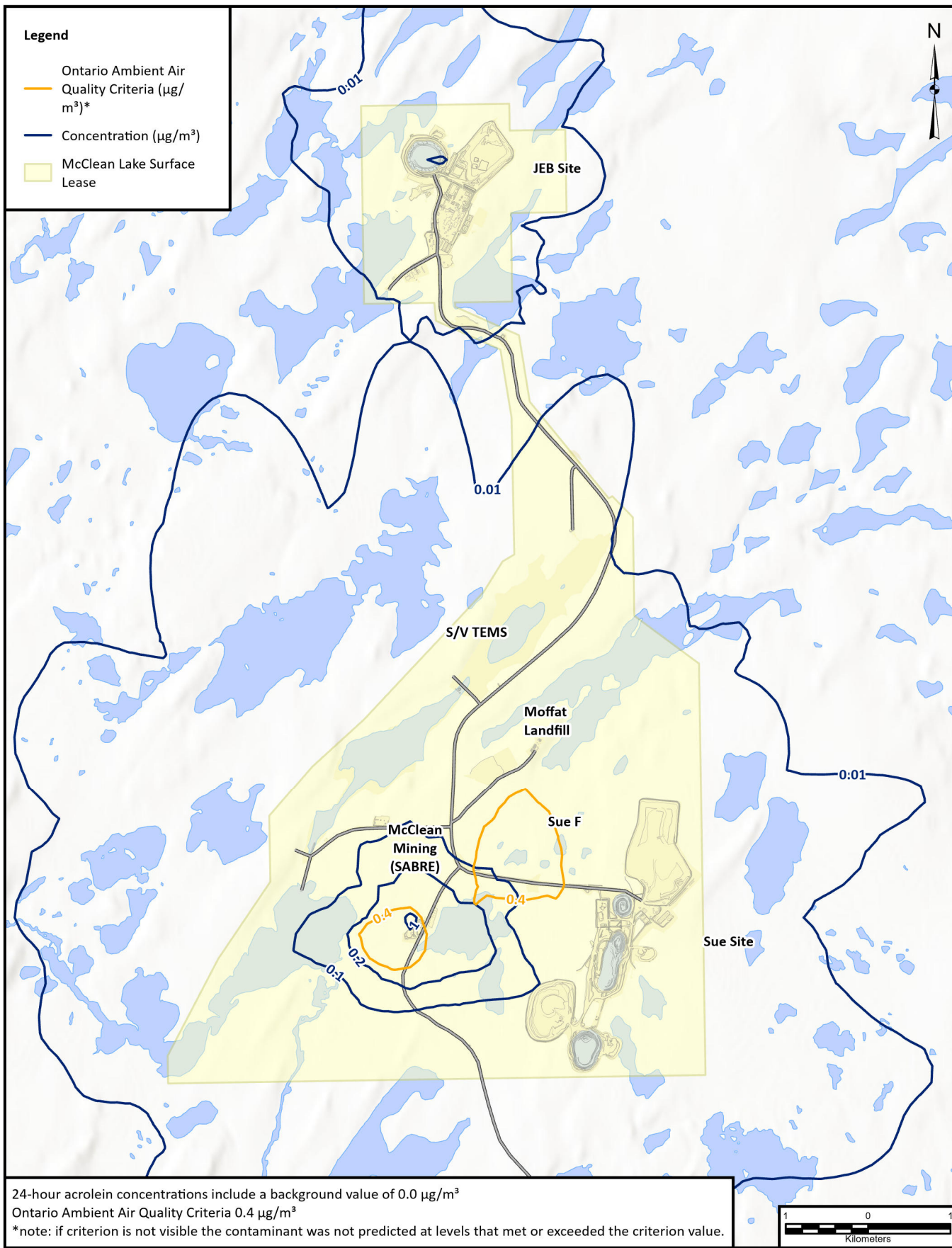
FIGURE 2.3-50

1-HOUR ACROLEIN CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
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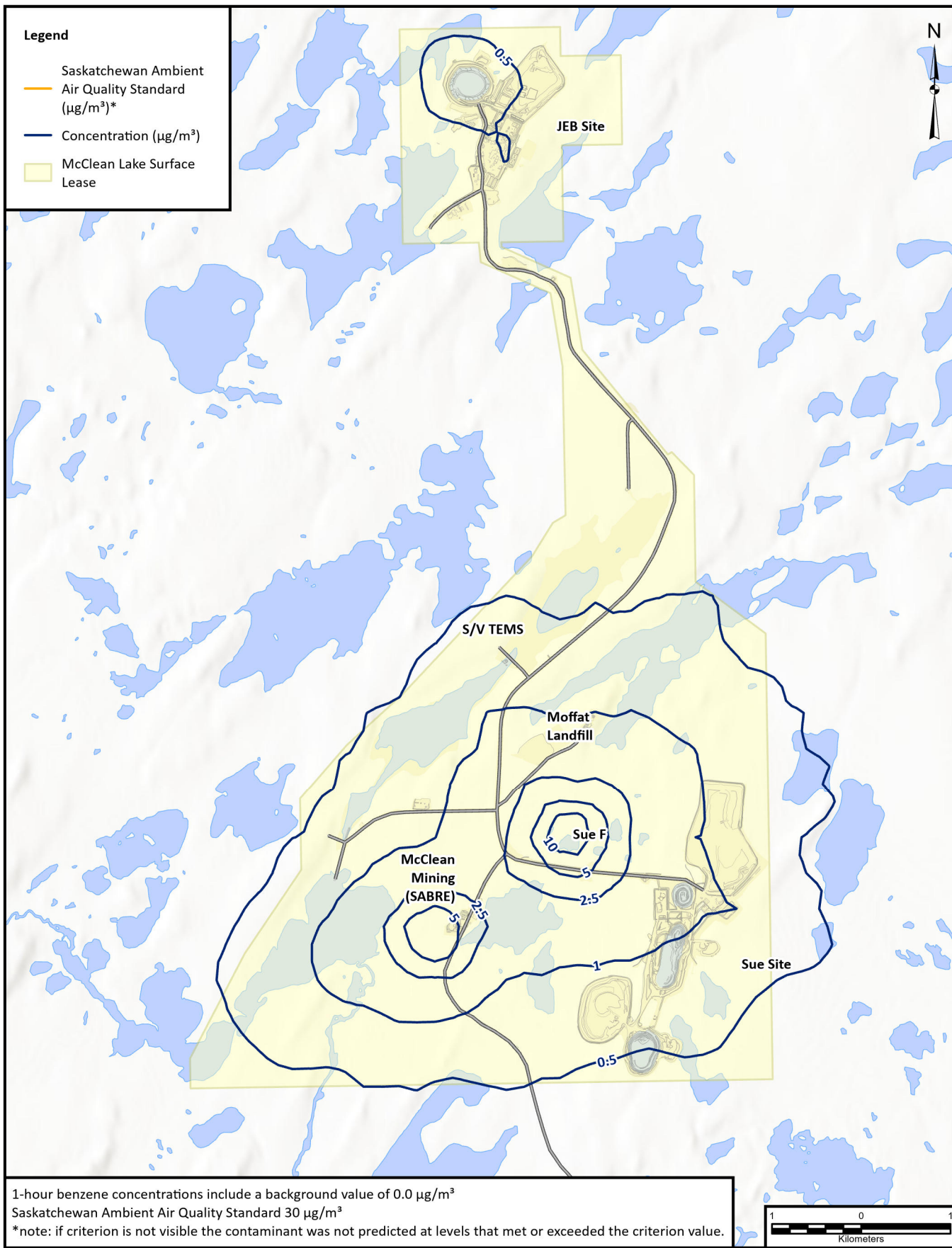
McCLEAN LAKE OPERATION

FIGURE 2.3-51

24-HOUR ACROLEIN CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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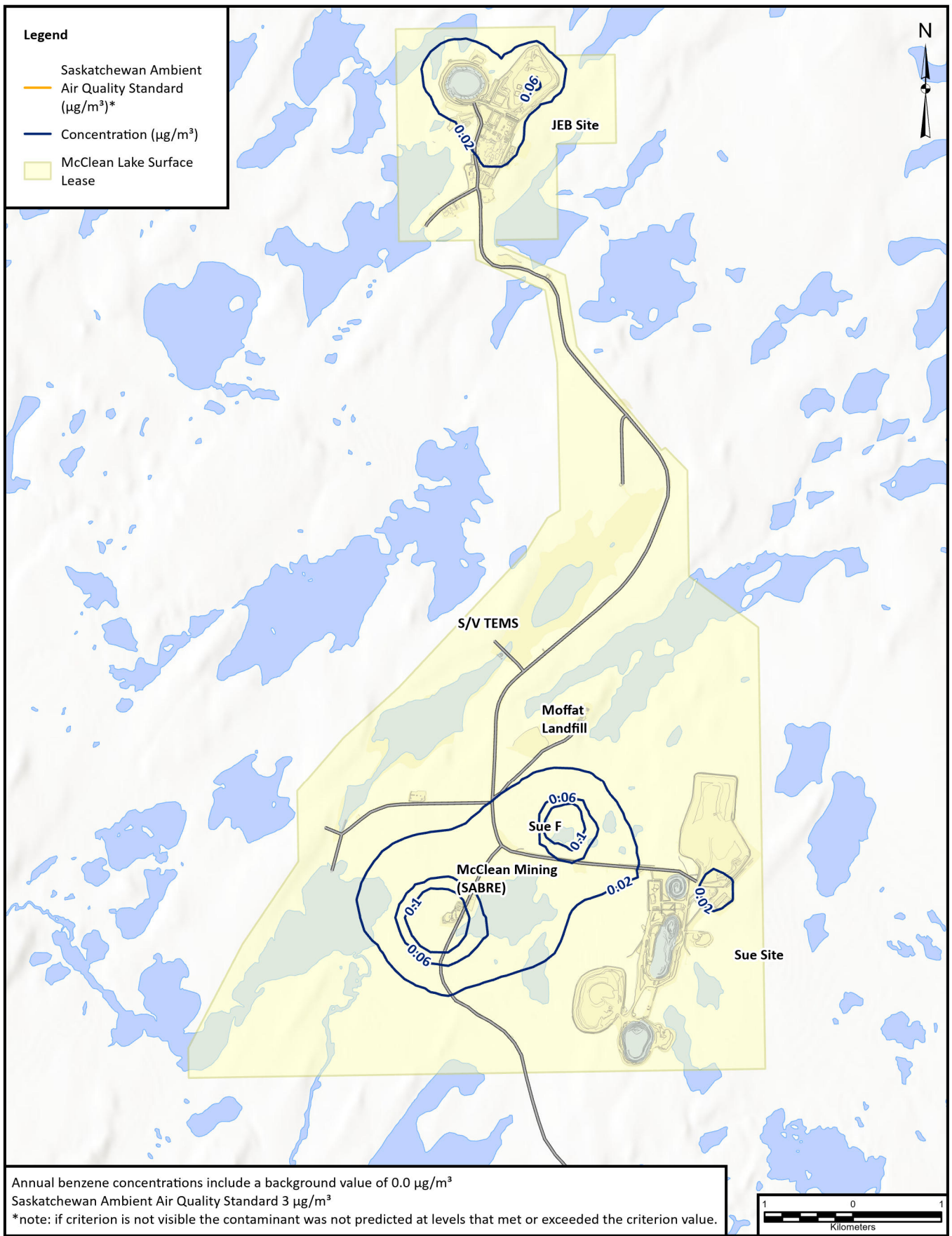
McCLEAN LAKE OPERATION

FIGURE 2.3-52

1-HOUR BENZENE CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

FIGURE 2.3-53

ANNUAL BENZENE CONCENTRATIONS
 FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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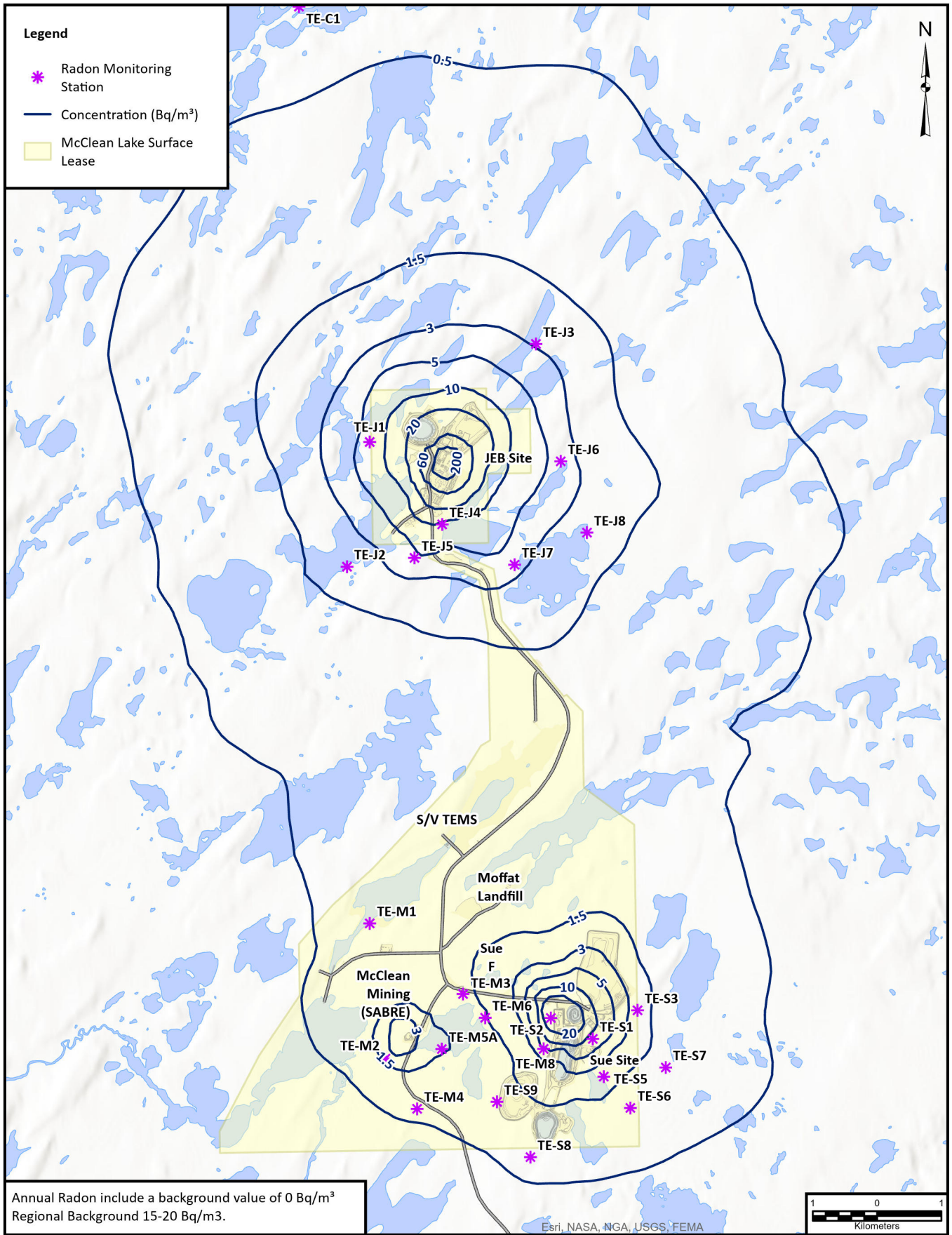


FIGURE 2.3-54

ANNUAL RADON CONCENTRATIONS
FOR THE MAXIMUM FUTURE OPERATIONS SCENARIO (Bq/m³)

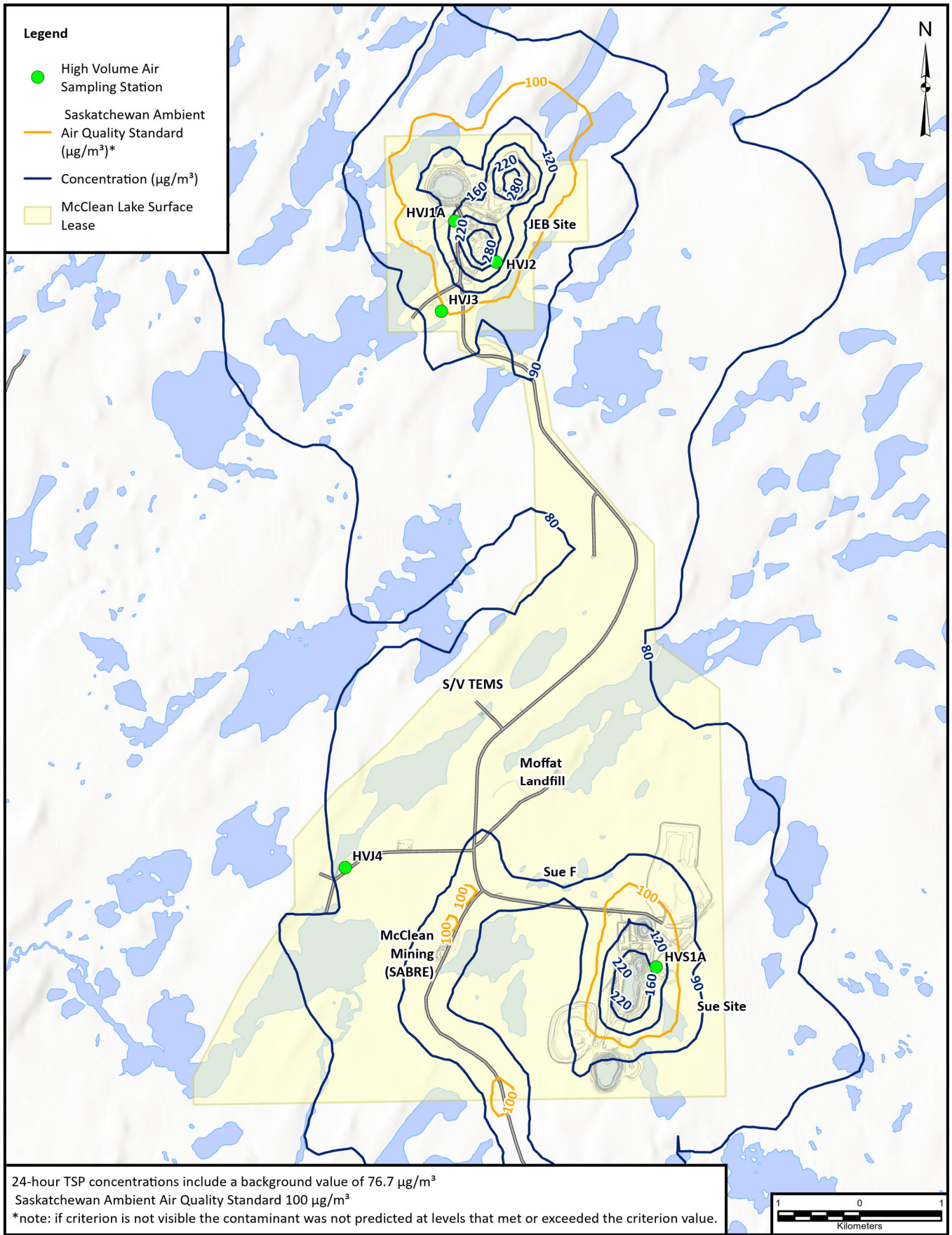
2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2

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Date: 2025-12-15 3:22 PM Scale: 1:82,500
Data Sources: Nation Topographic Database, IEC,
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Projection: NAD 1983 UTM Zone 13N
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McCLEAN LAKE OPERATION

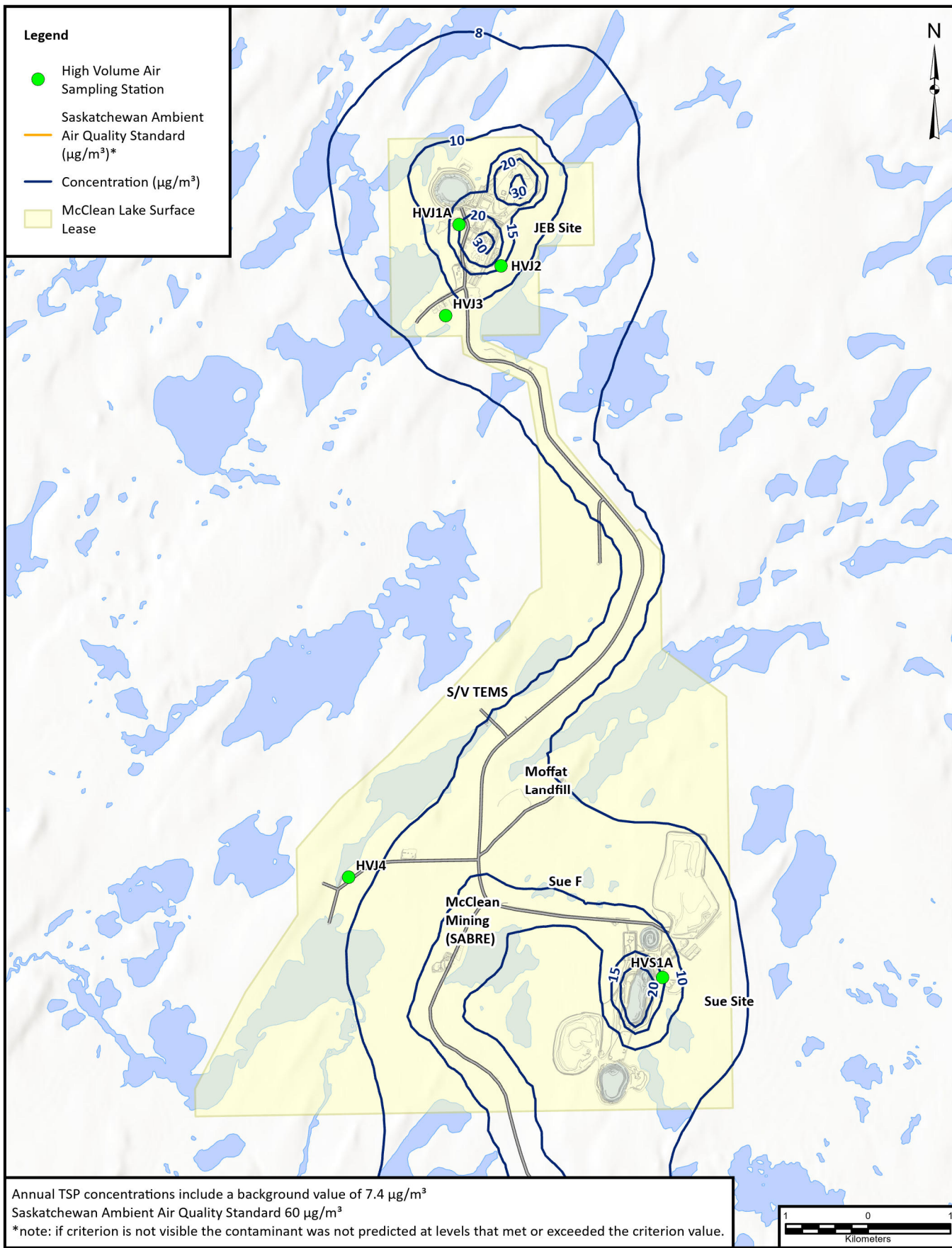
FIGURE 2.3-55

24-HOUR TSP CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
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 ORANO Canada Inc.

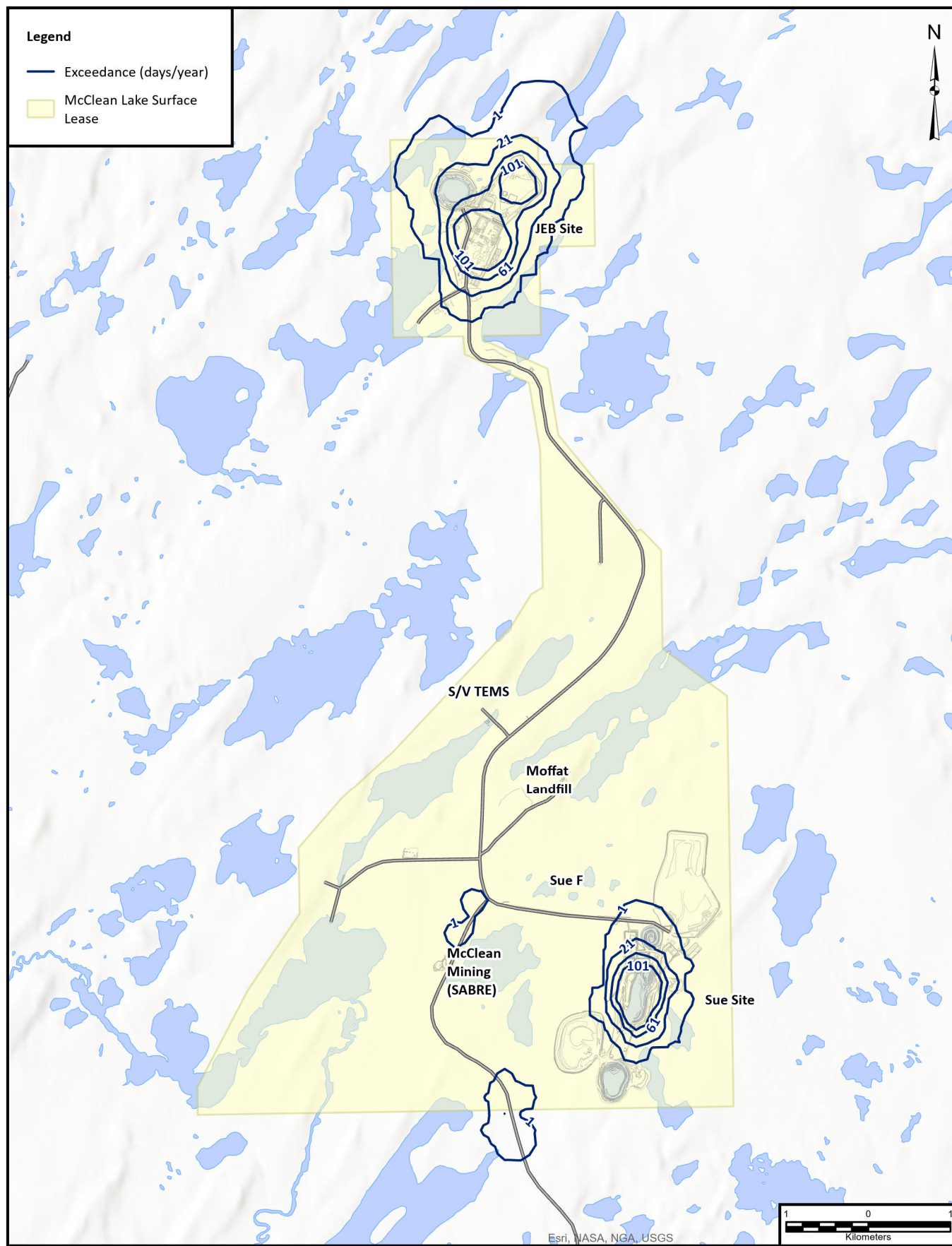
McCLEAN LAKE OPERATION

FIGURE 2.3-56

ANNUAL TSP CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





Projection: NAD 1983 UTM Zone 13N
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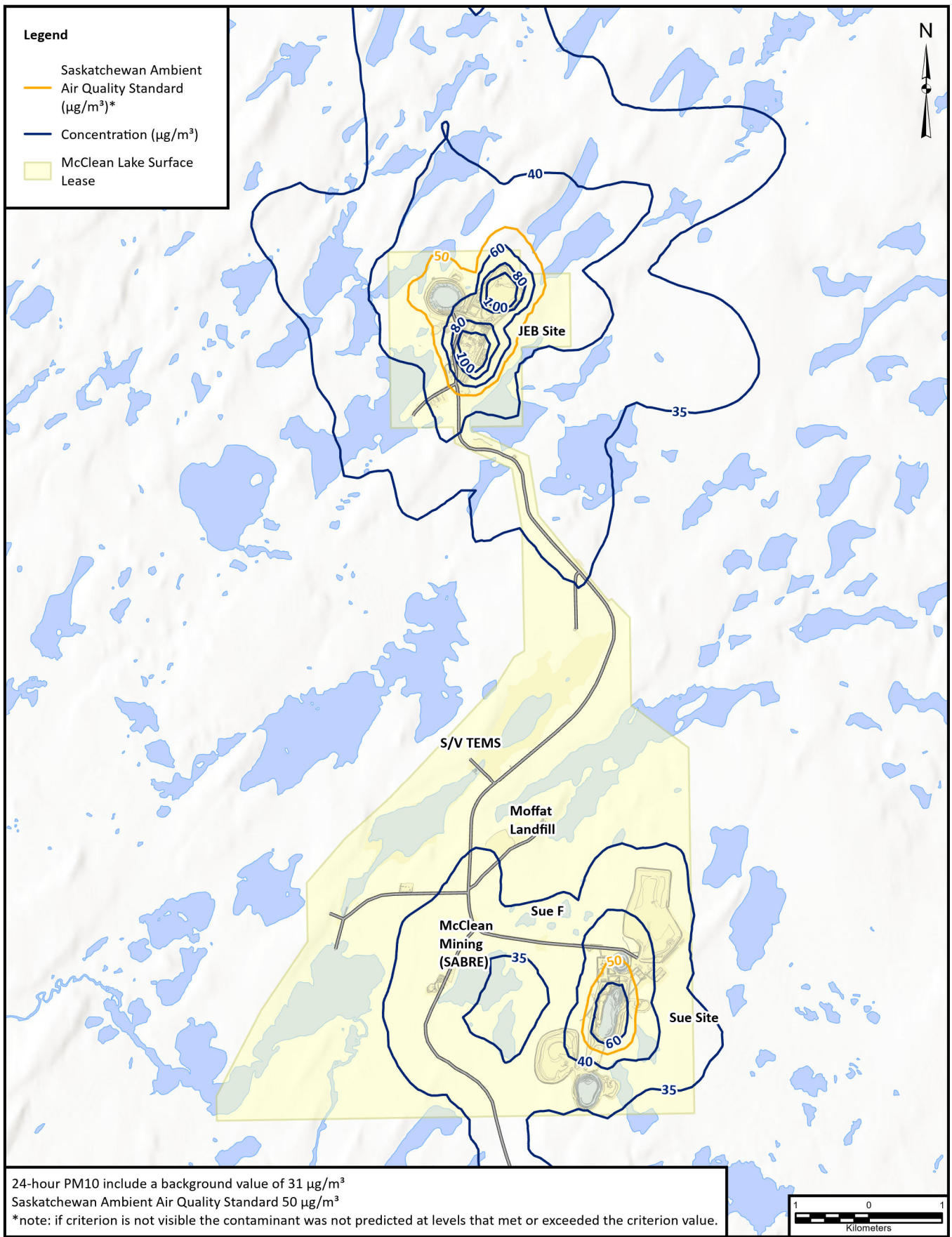
McCLEAN LAKE OPERATION

FIGURE 2.3-57

24-HOUR TSP EXCEEDANCES
 FOR THE DECOMMISSIONING SCENARIO (DAYS/YEAR)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-11-19 10:16 AM Scale: 1:72,500
 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

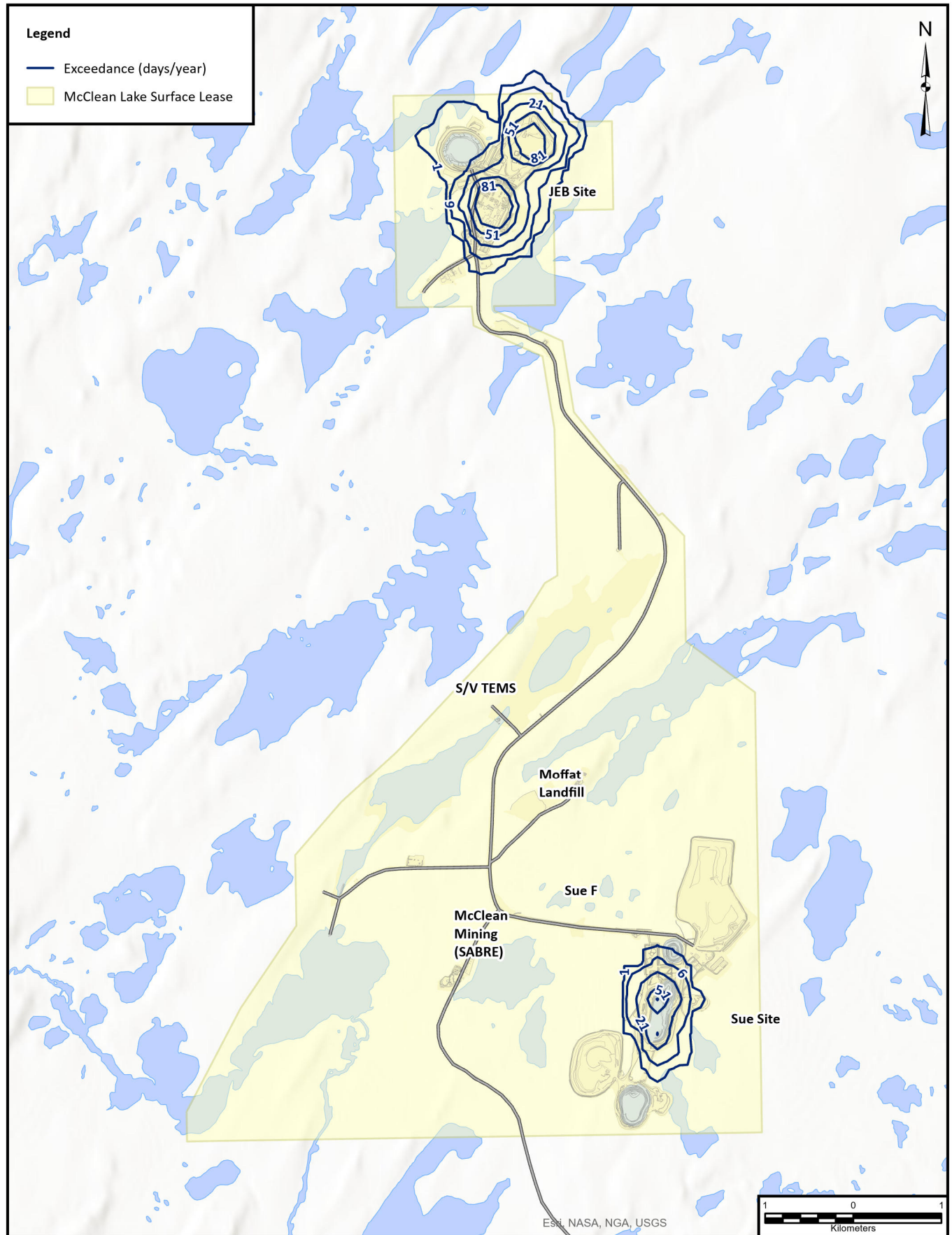
FIGURE 2.3-58

24-HOUR PM10 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
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 Data Sources: Nation Topographic Database, IEC,
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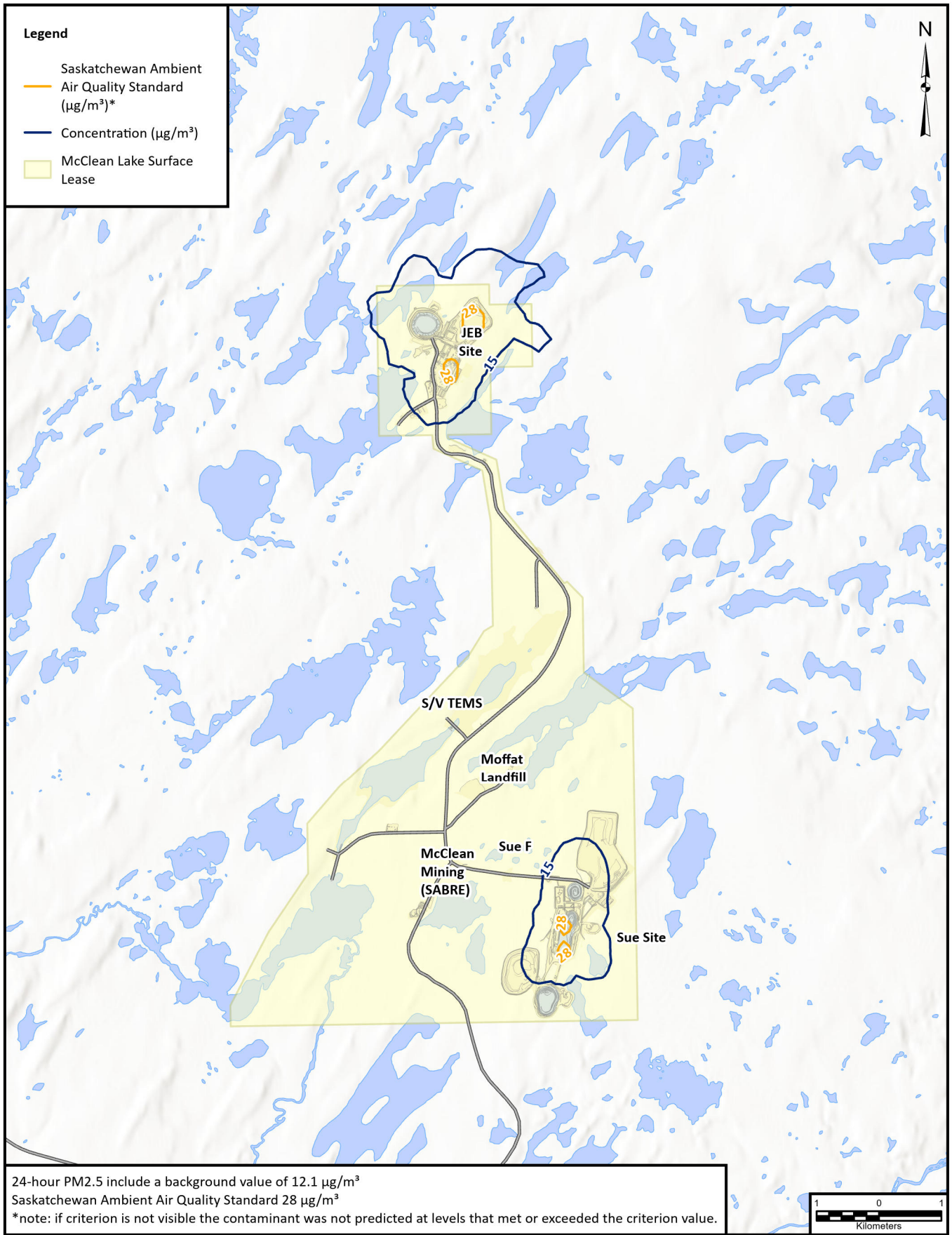
FIGURE 2.3-59

24-HOUR PM10 EXCEEDANCES
 FOR THE DECOMMISSIONING SCENARIO (DAYS/YEAR)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-11-19 11:23 AM Scale: 1:85,000
 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

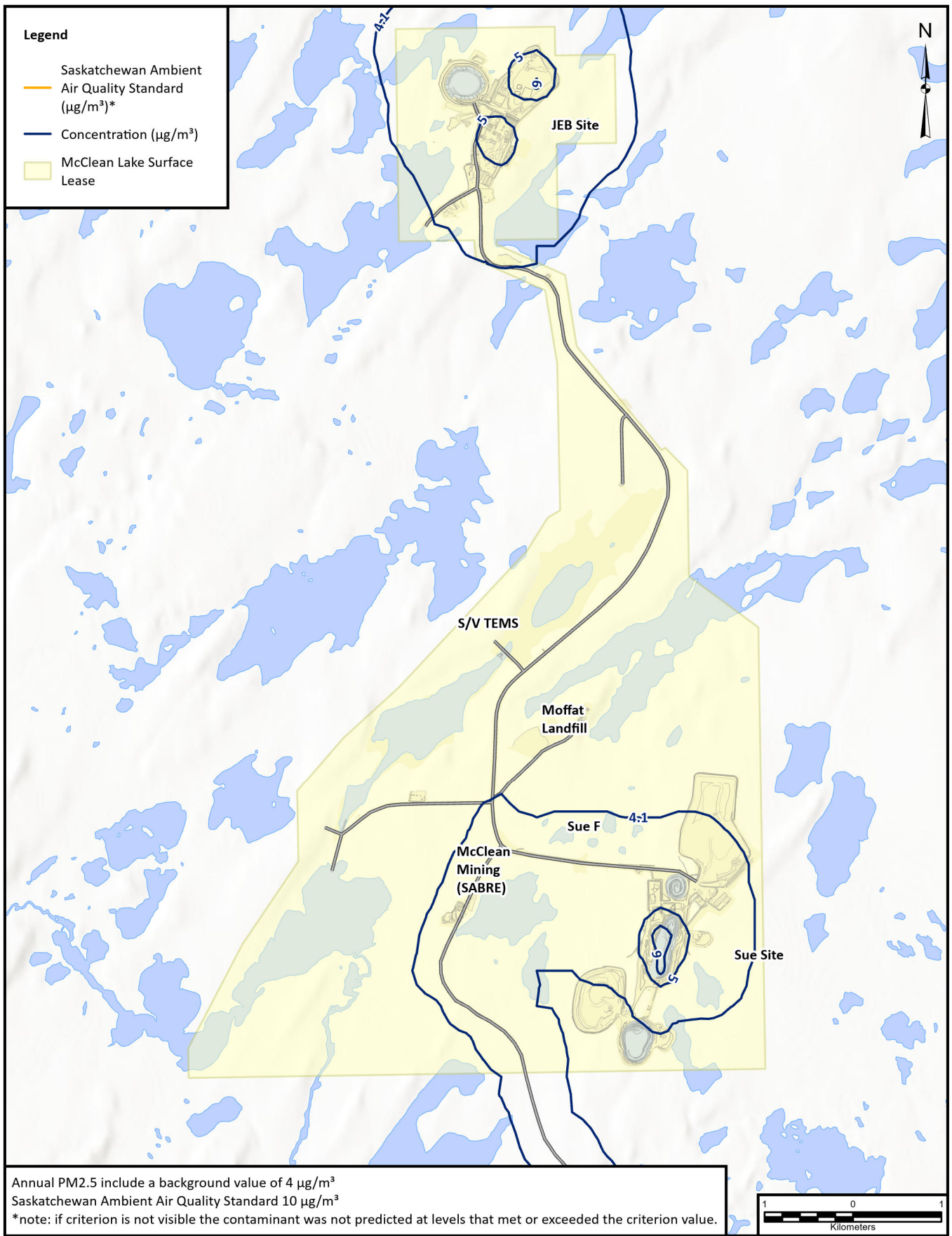
FIGURE 2.3-60

24-HOUR PM2.5 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-11-19 11:23 AM Scale: 1:60,000
 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

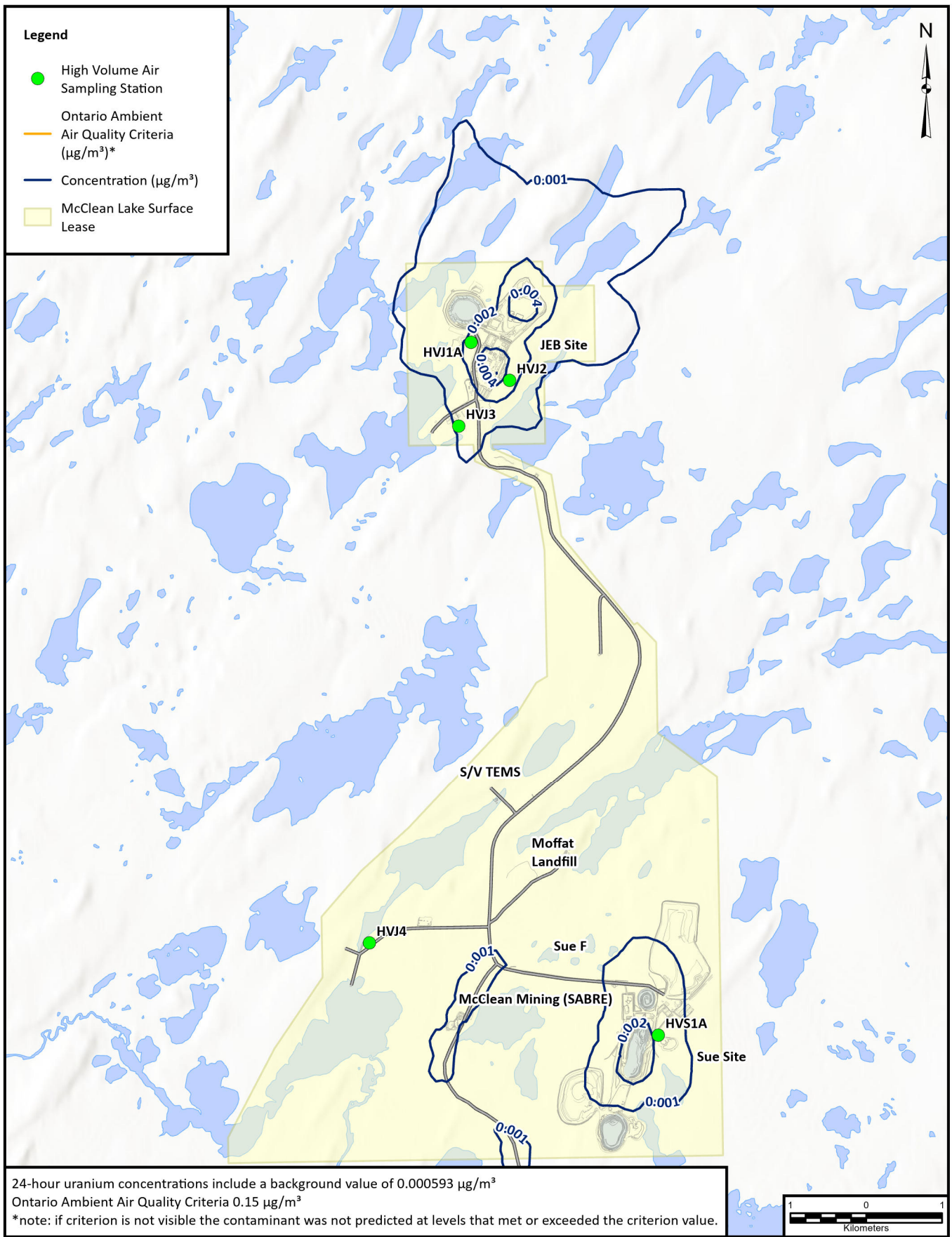
FIGURE 2.3-61

ANNUAL PM2.5 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
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 Data Sources: Nation Topographic Database, IEC,
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McCLEAN LAKE OPERATION

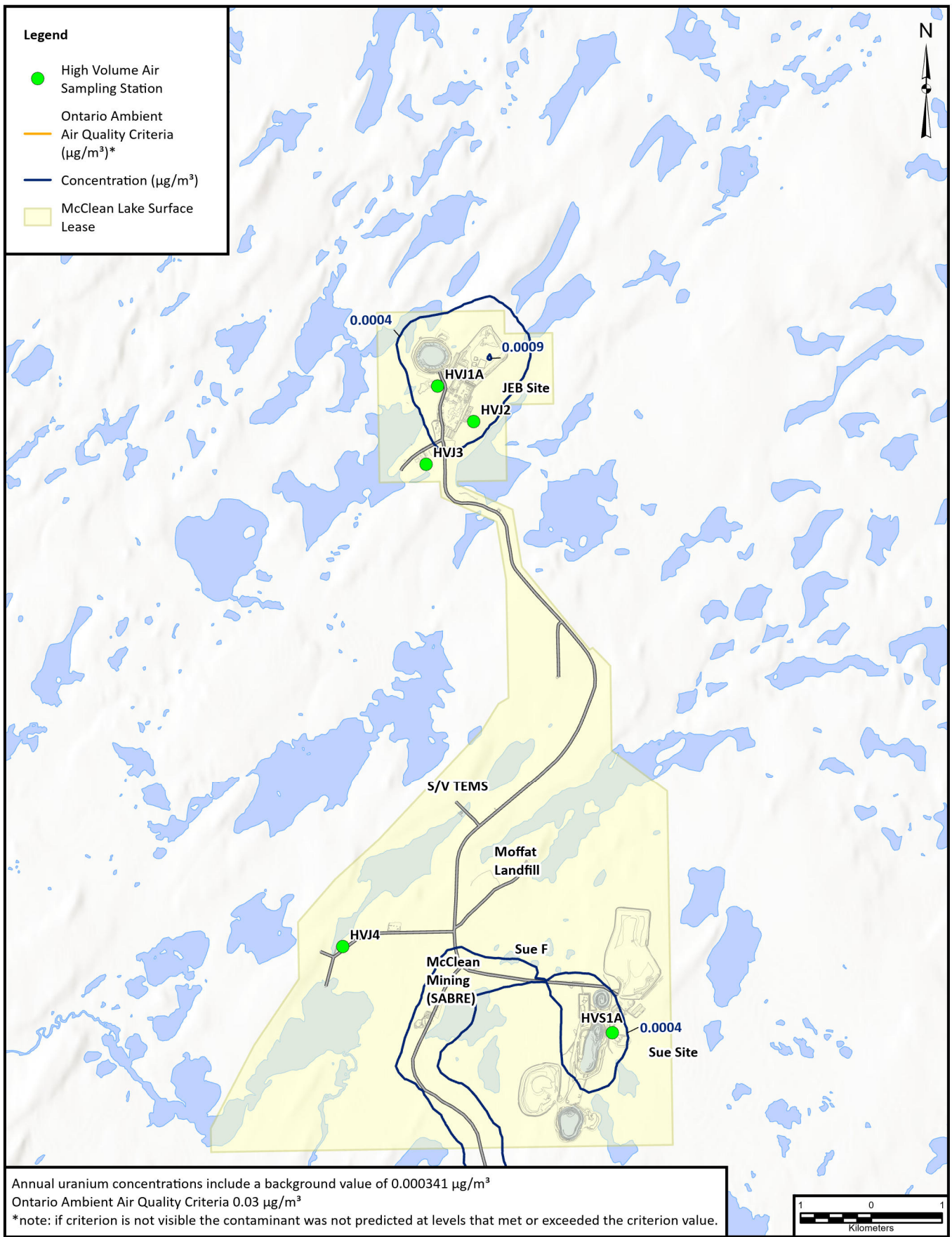
FIGURE 2.3-62

24-HOUR URANIUM CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
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 Data Sources: Nation Topographic Database, IEC,
 ORANO Canada Inc.

McCLEAN LAKE OPERATION

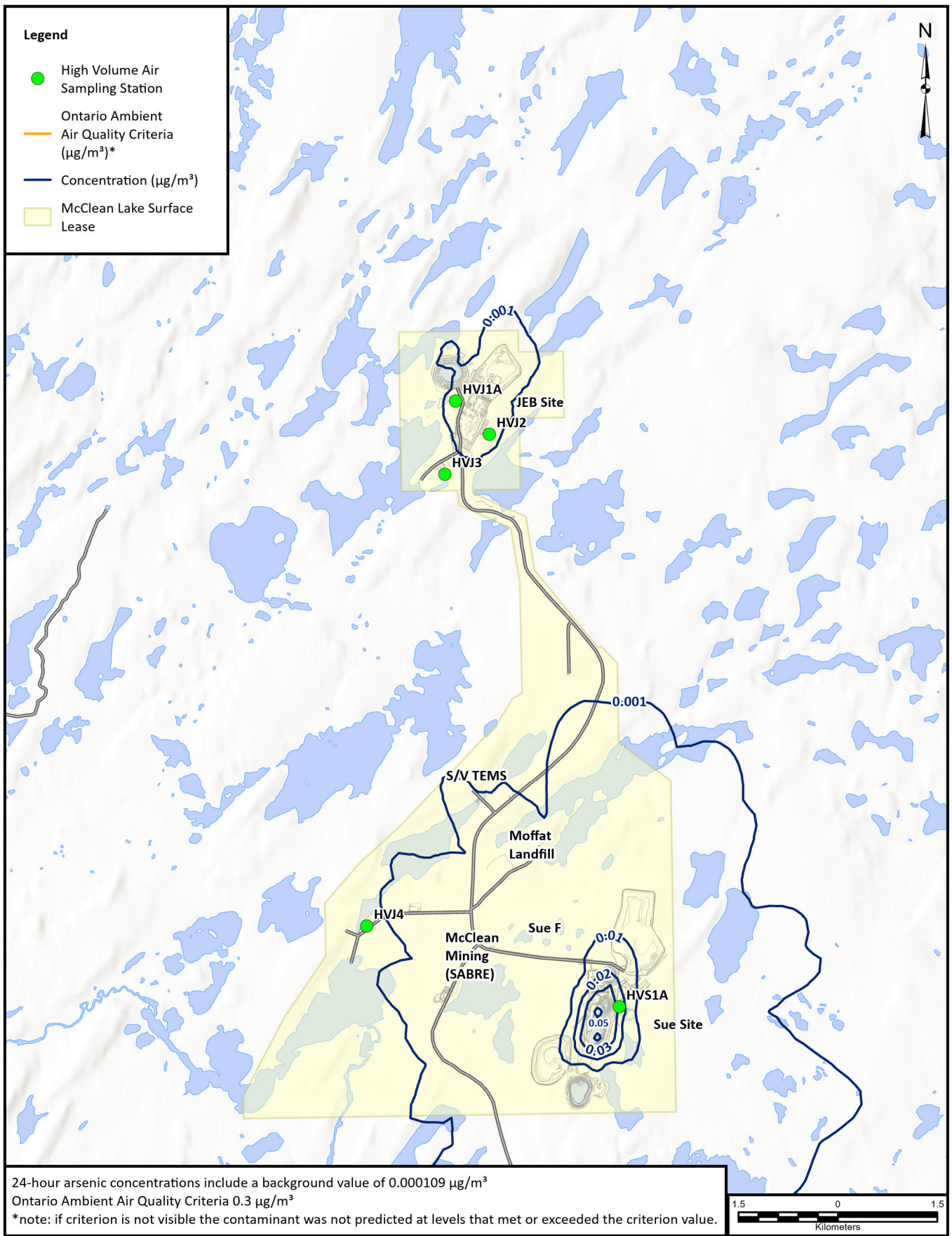
FIGURE 2.3-63

ANNUAL URANIUM CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
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McCLEAN LAKE OPERATION

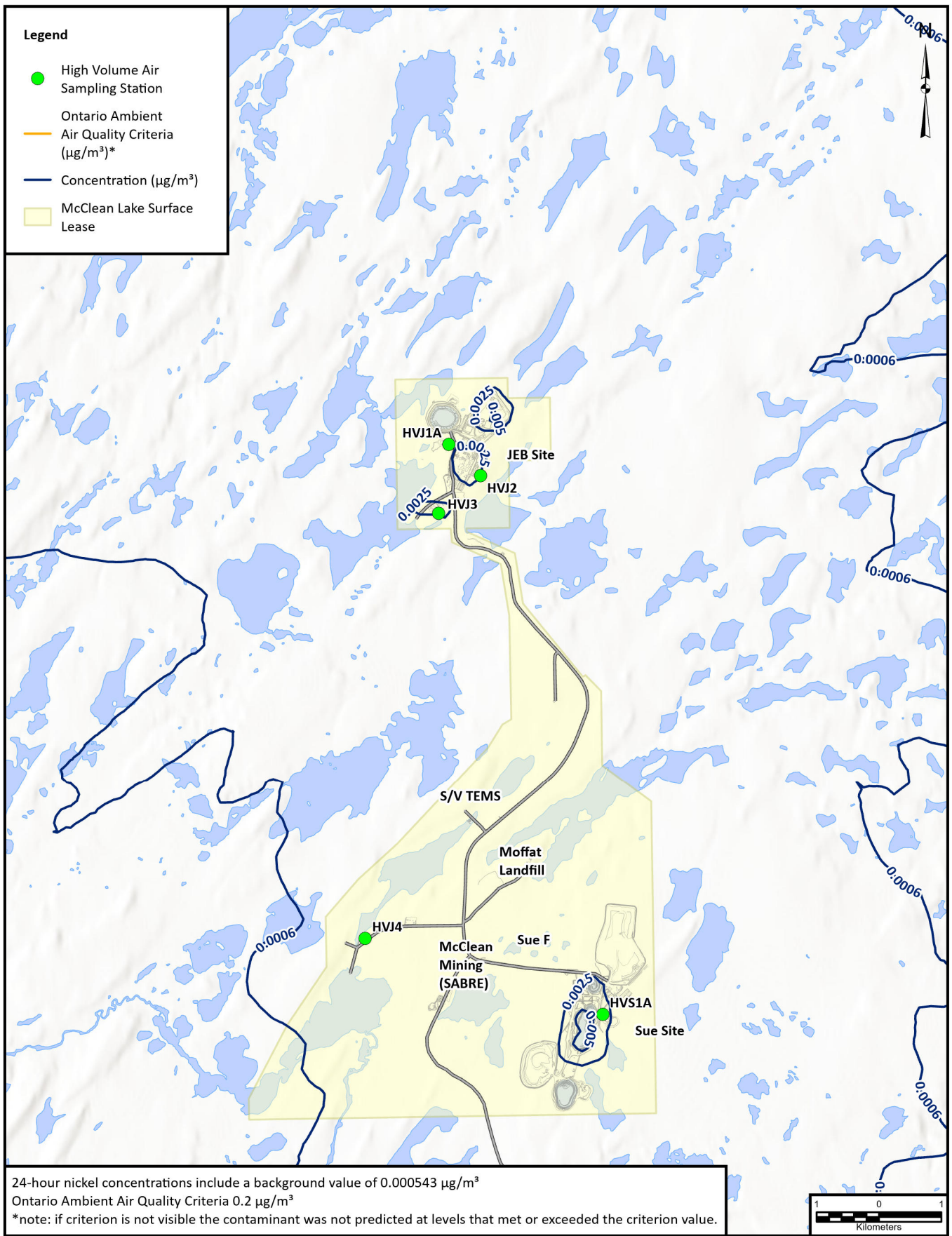
FIGURE 2.3-64

24-HOUR ARSENIC CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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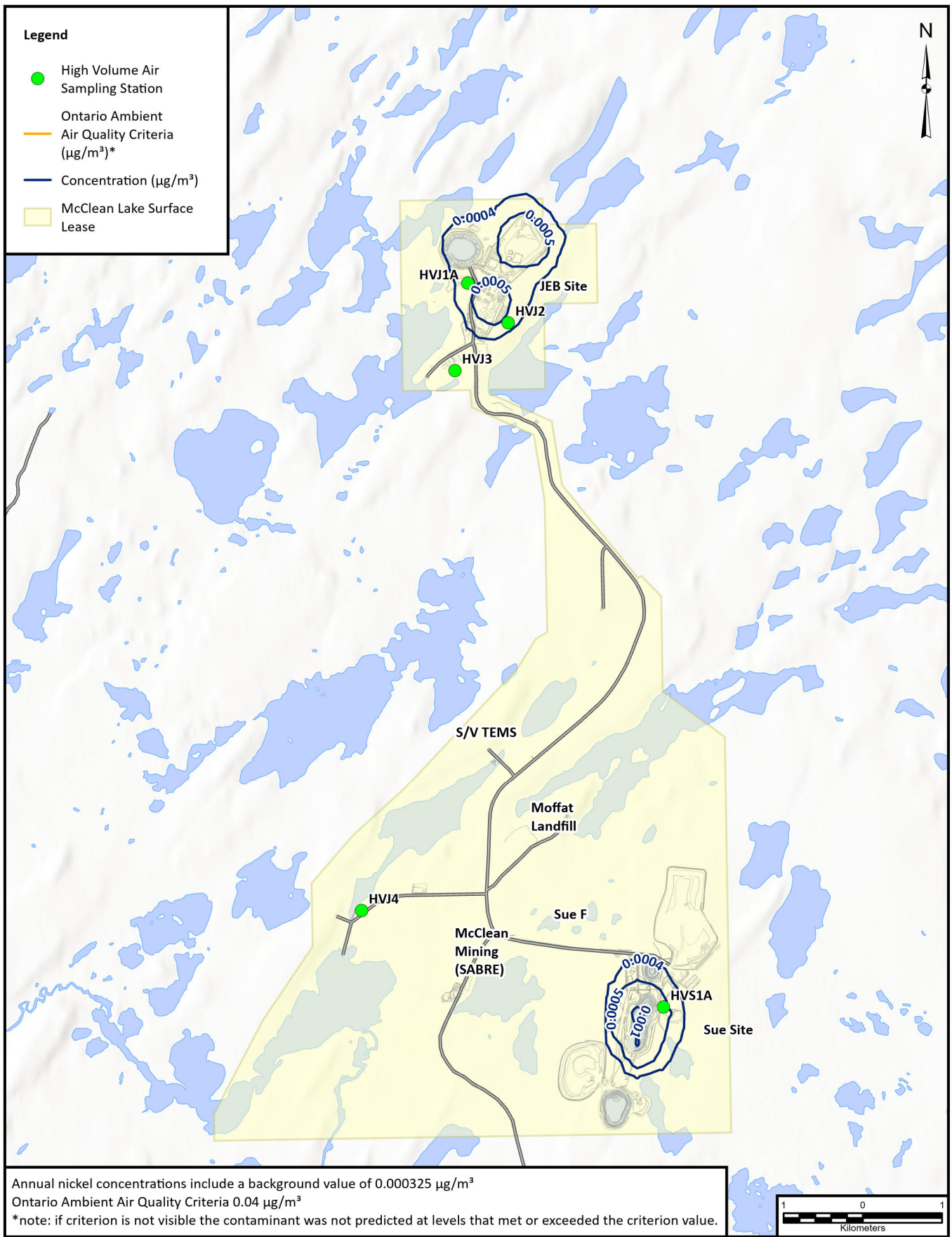
FIGURE 2.3-65

24-HOUR NICKEL CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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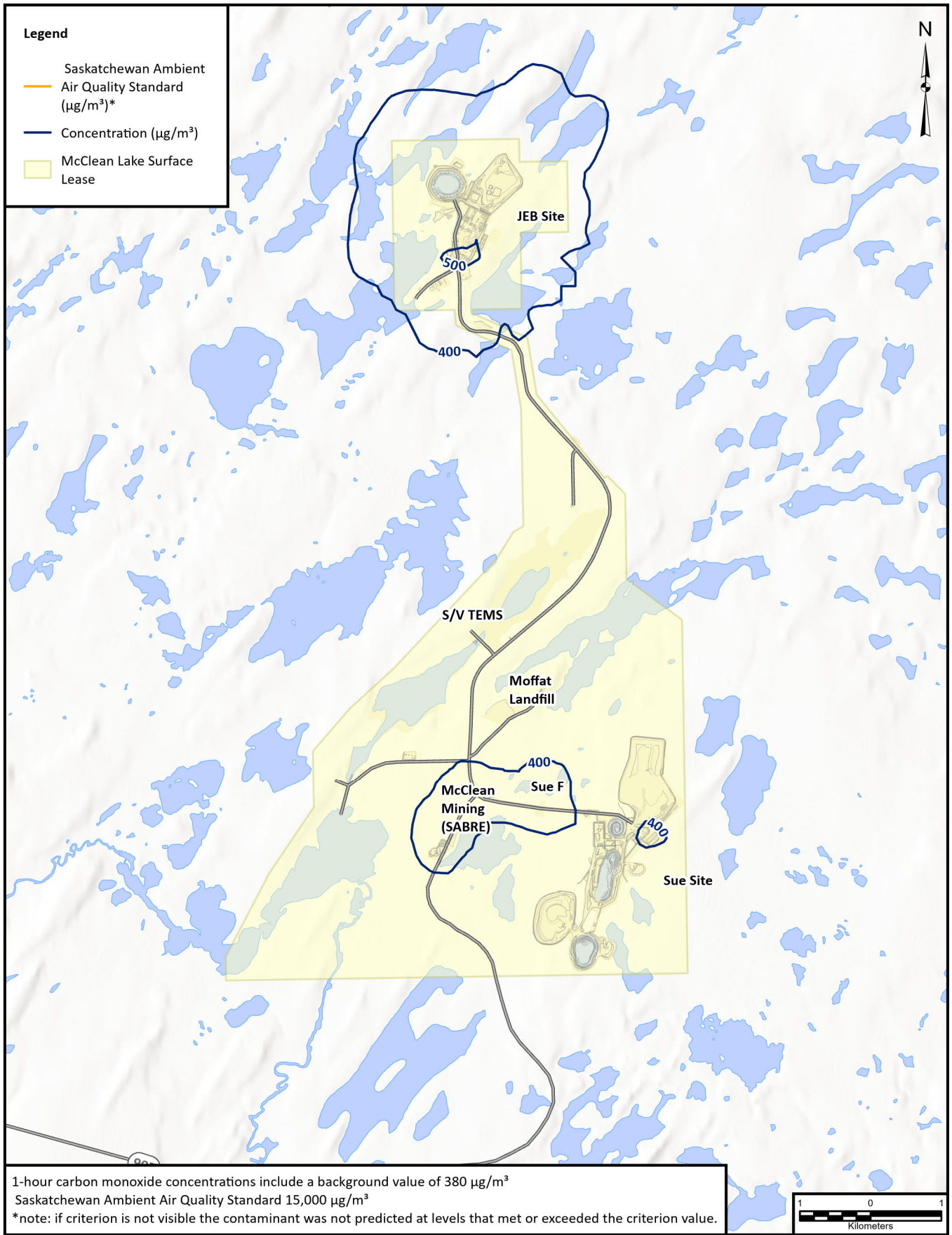
FIGURE 2.3-66

ANNUAL NICKEL CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

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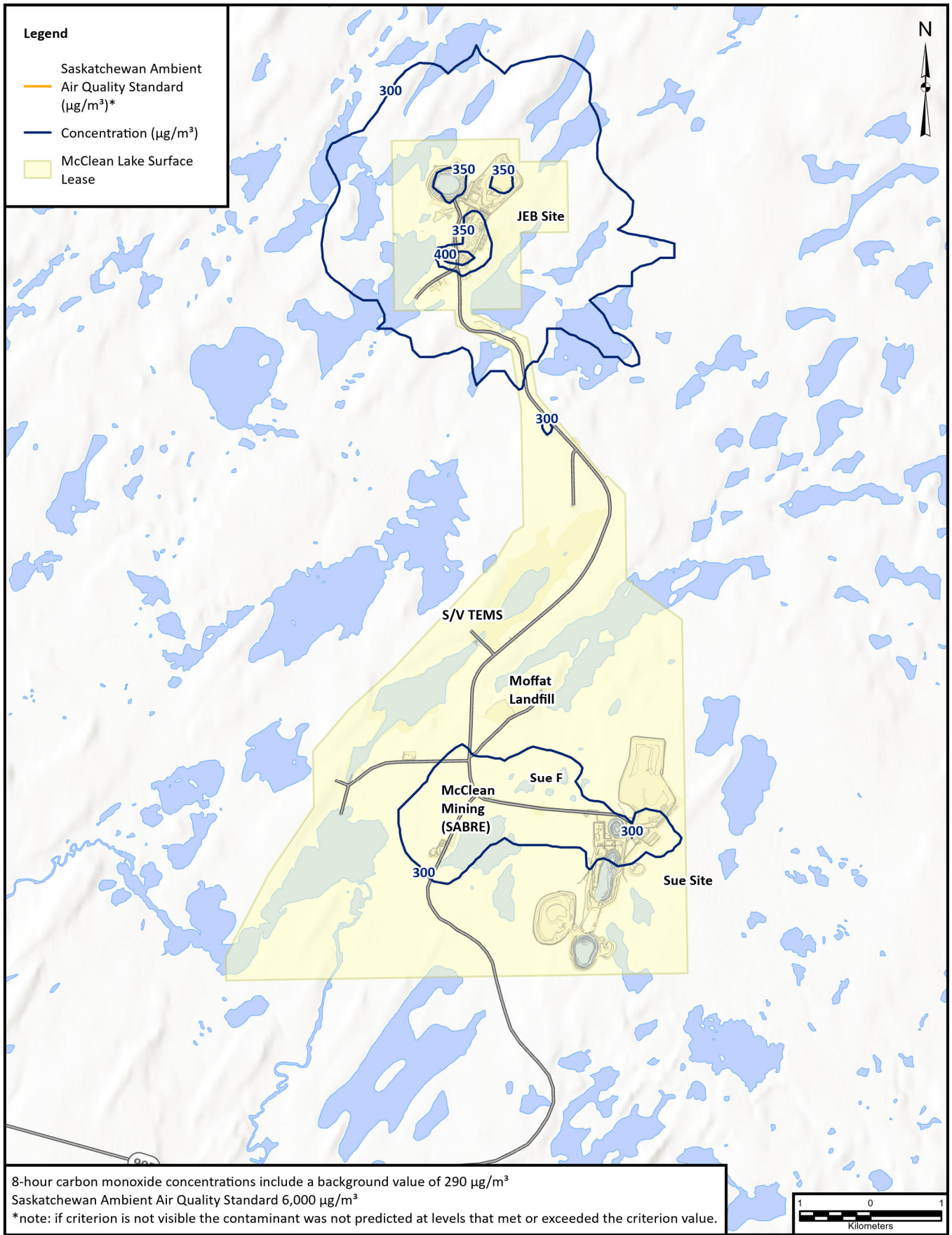
FIGURE 2.3-67

1-HOUR CO CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
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McCLEAN LAKE OPERATION

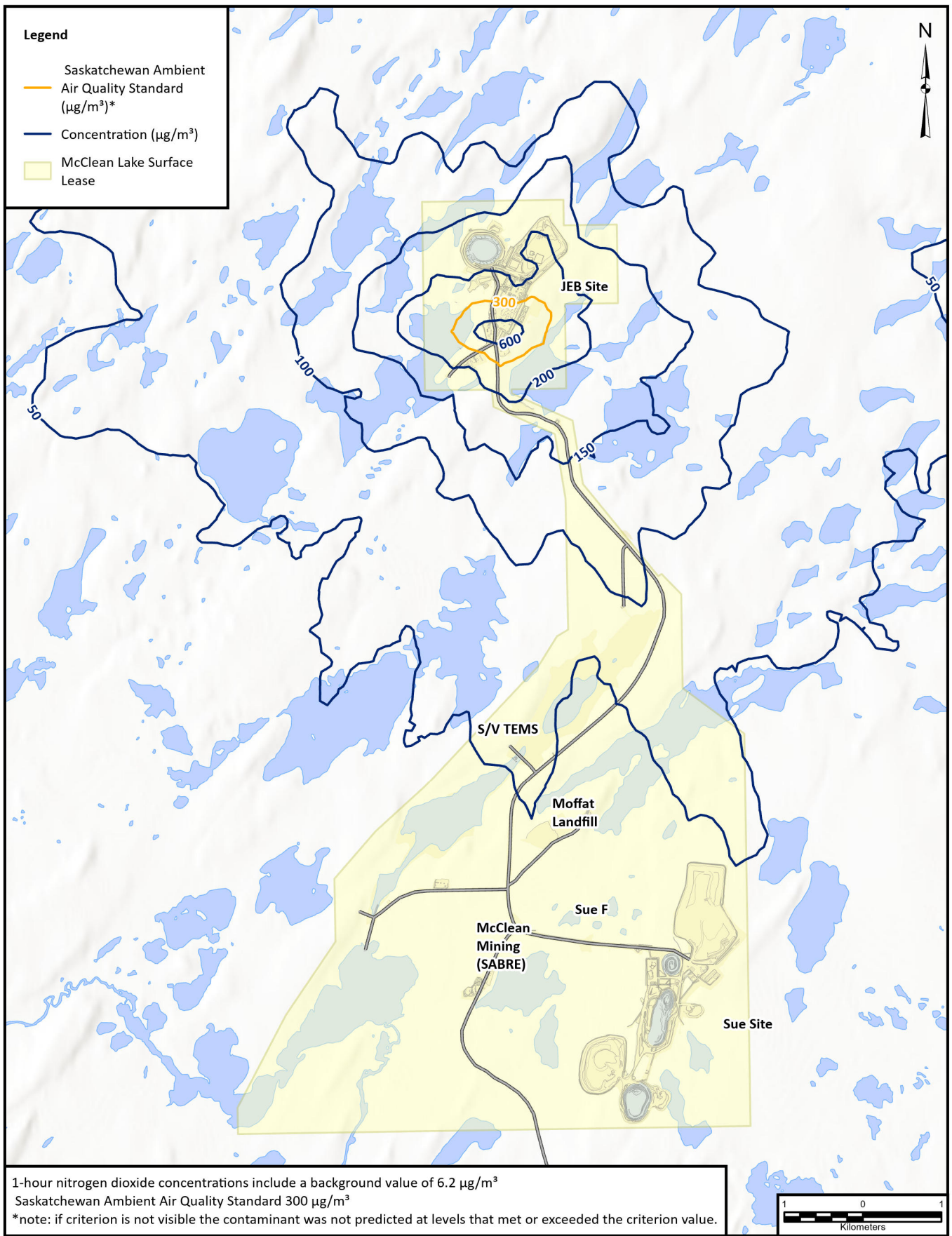
FIGURE 2.3-68

8-HOUR CO CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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McCLEAN LAKE OPERATION

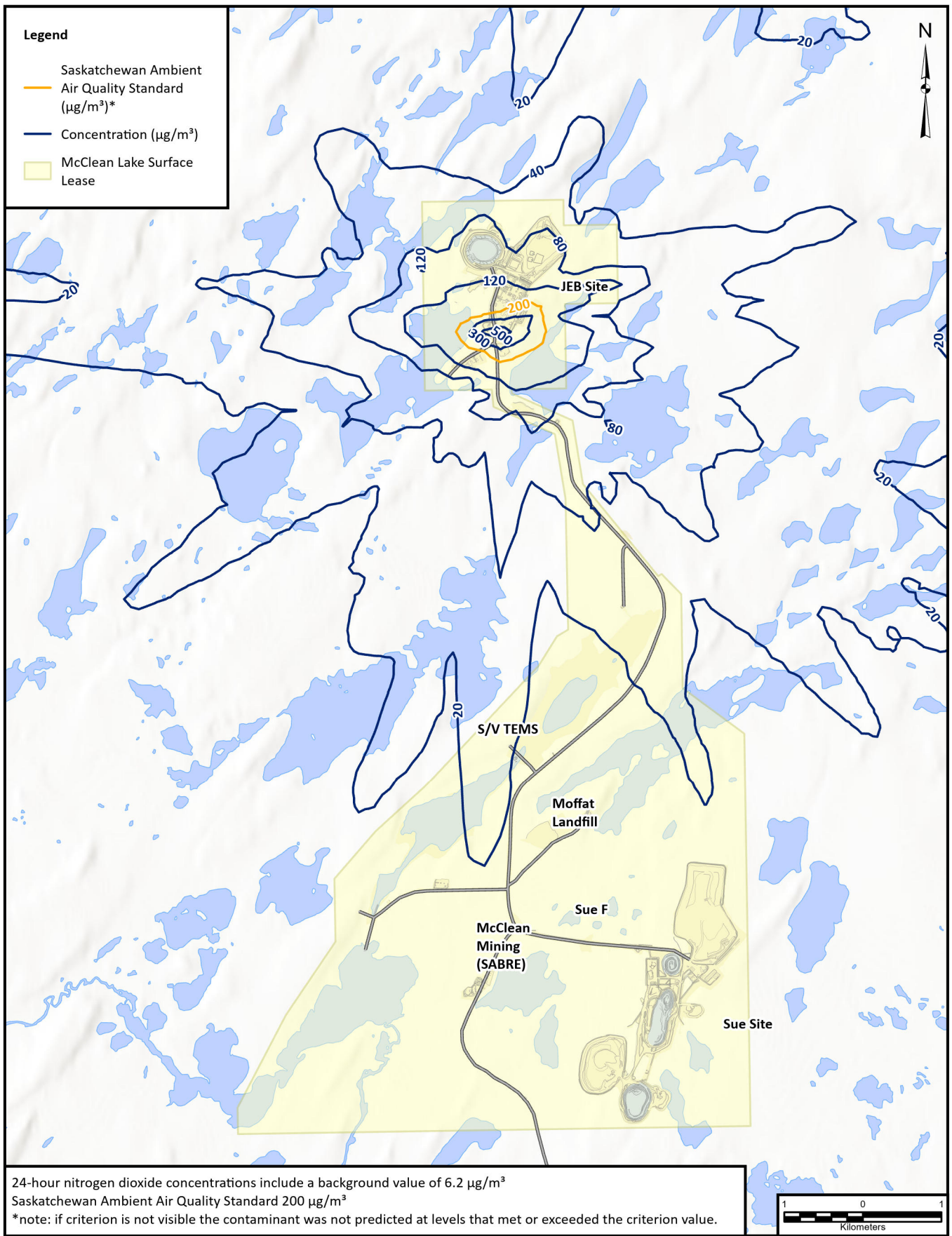
FIGURE 2.3-69

1-HOUR NO₂ CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
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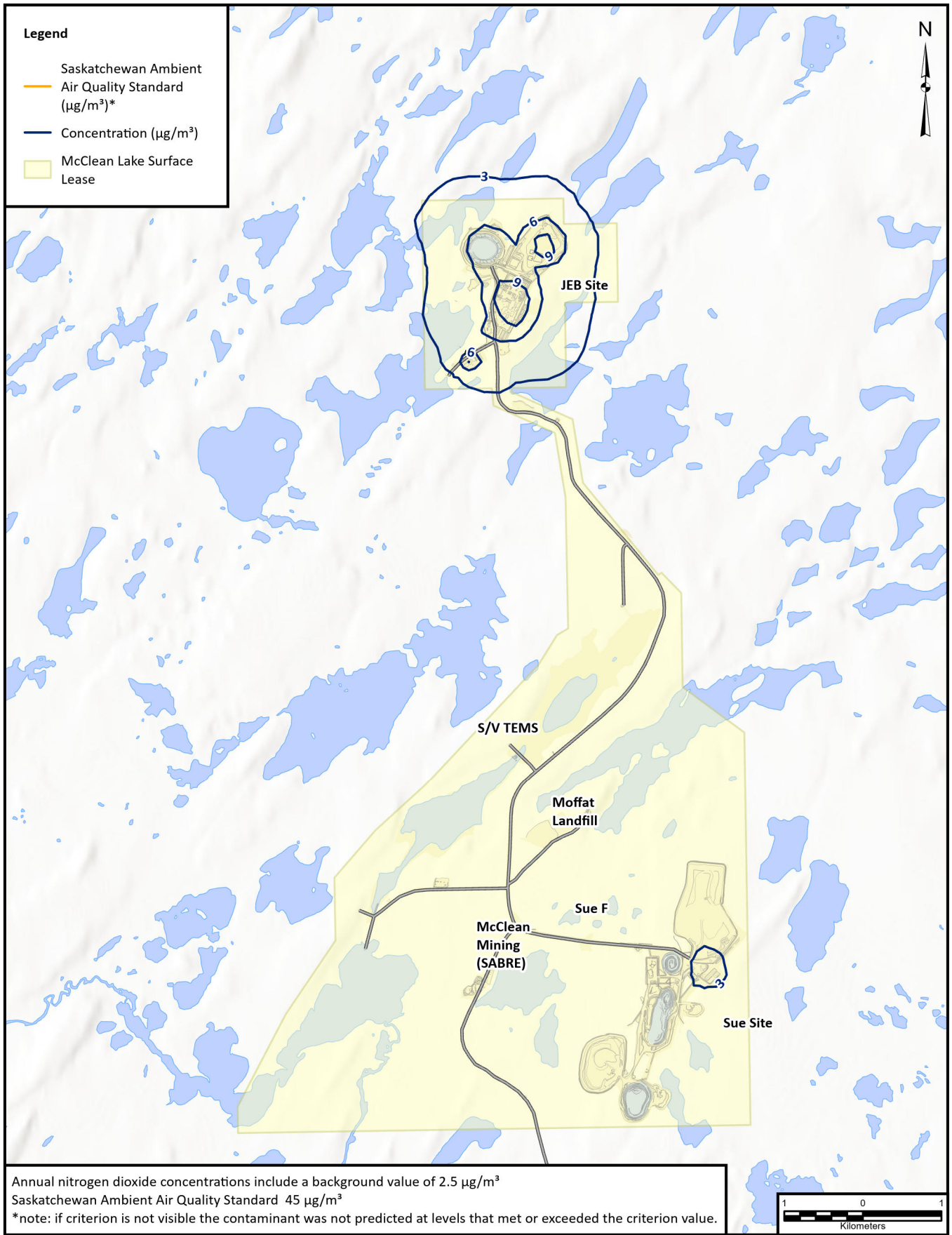
FIGURE 2.3-70

24-HOUR NO₂ CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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 Compiled: T.Lohman Drawn: T.Lohman
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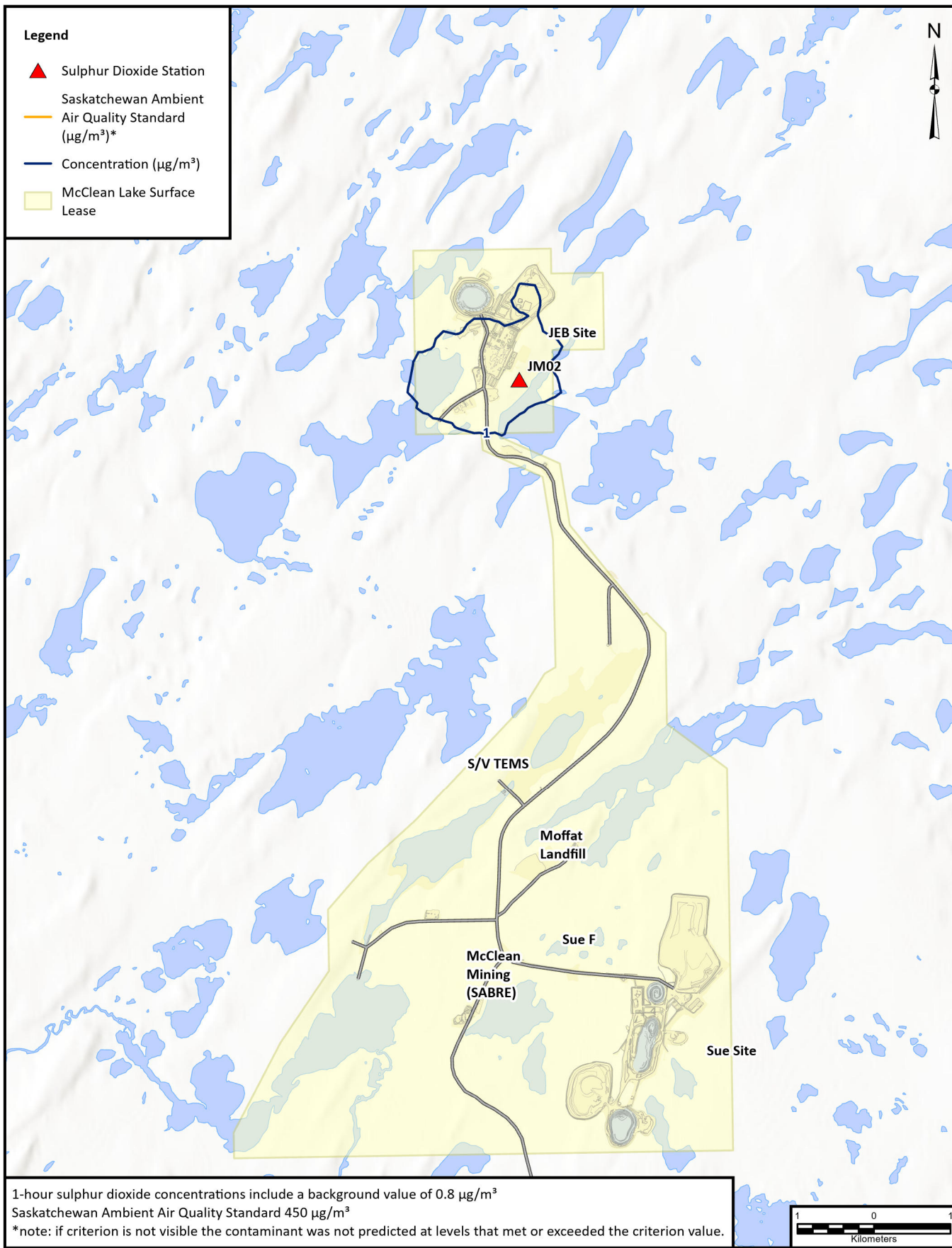
FIGURE 2.3-71

ANNUAL NO₂ CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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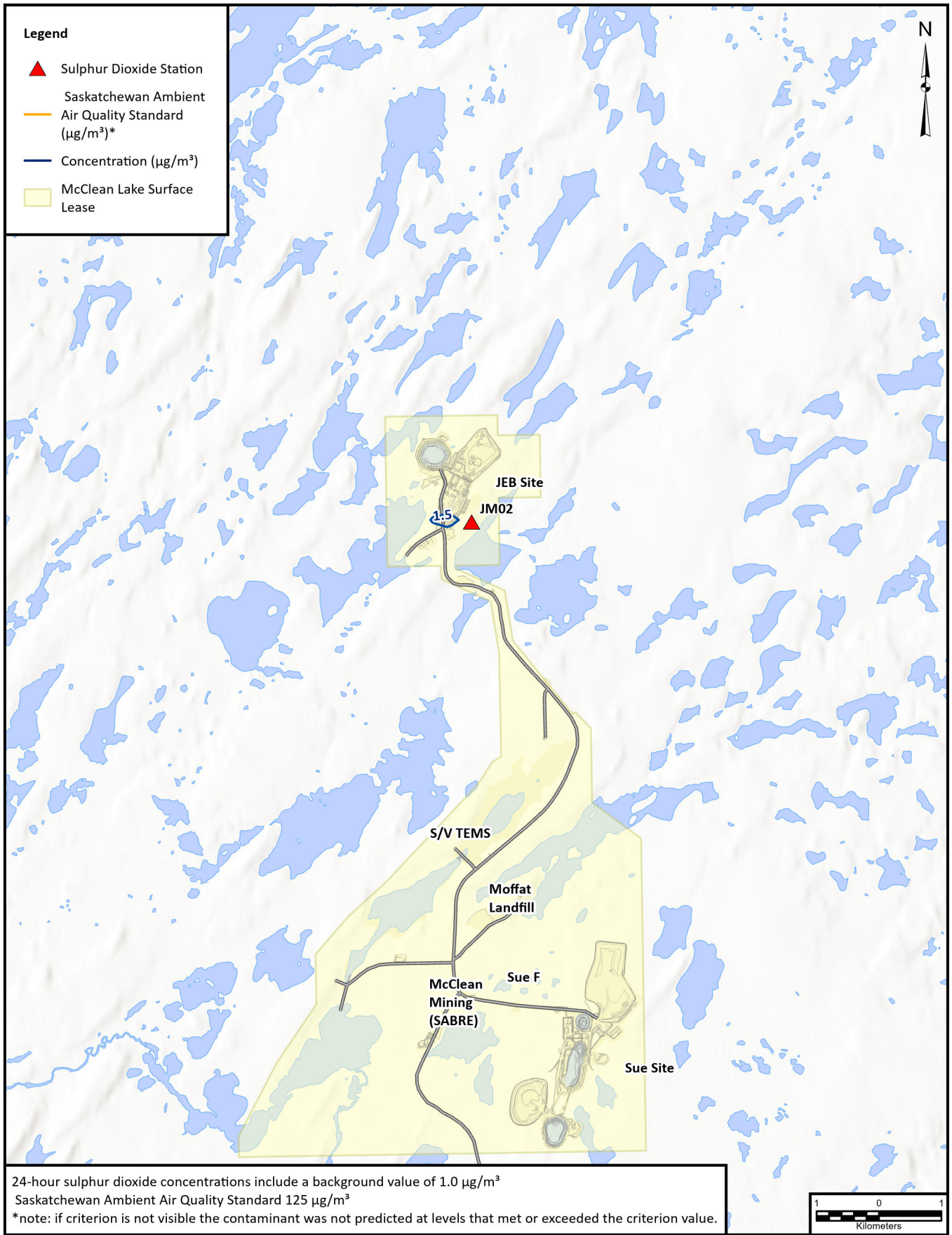
McCLEAN LAKE OPERATION

FIGURE 2.3-72

1-HOUR SO_2 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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 Data Sources: Nation Topographic Database, IEC,
 ORANO Canada Inc.

McCLEAN LAKE OPERATION

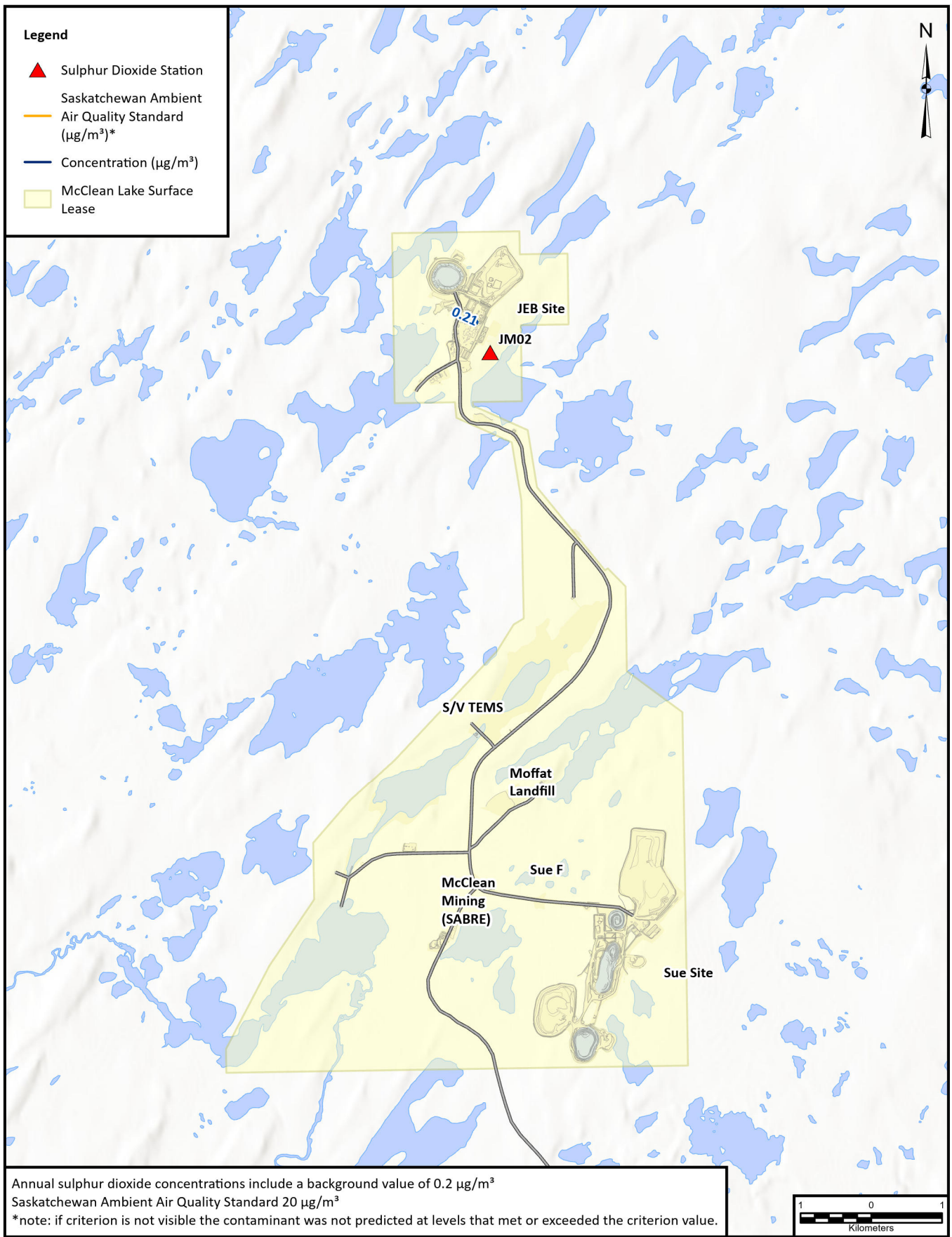
FIGURE 2.3-73

24-HOUR SO_2 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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Projection: NAD 1983 UTM Zone 13N
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 Date: 2025-11-20 10:37 AM Scale: 1:75,000
 Data Sources: Nation Topographic Database, IEC,
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FIGURE 2.3-74

ANNUAL SO_2 CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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 Compiled: T.Lohman Drawn: T.Lohman
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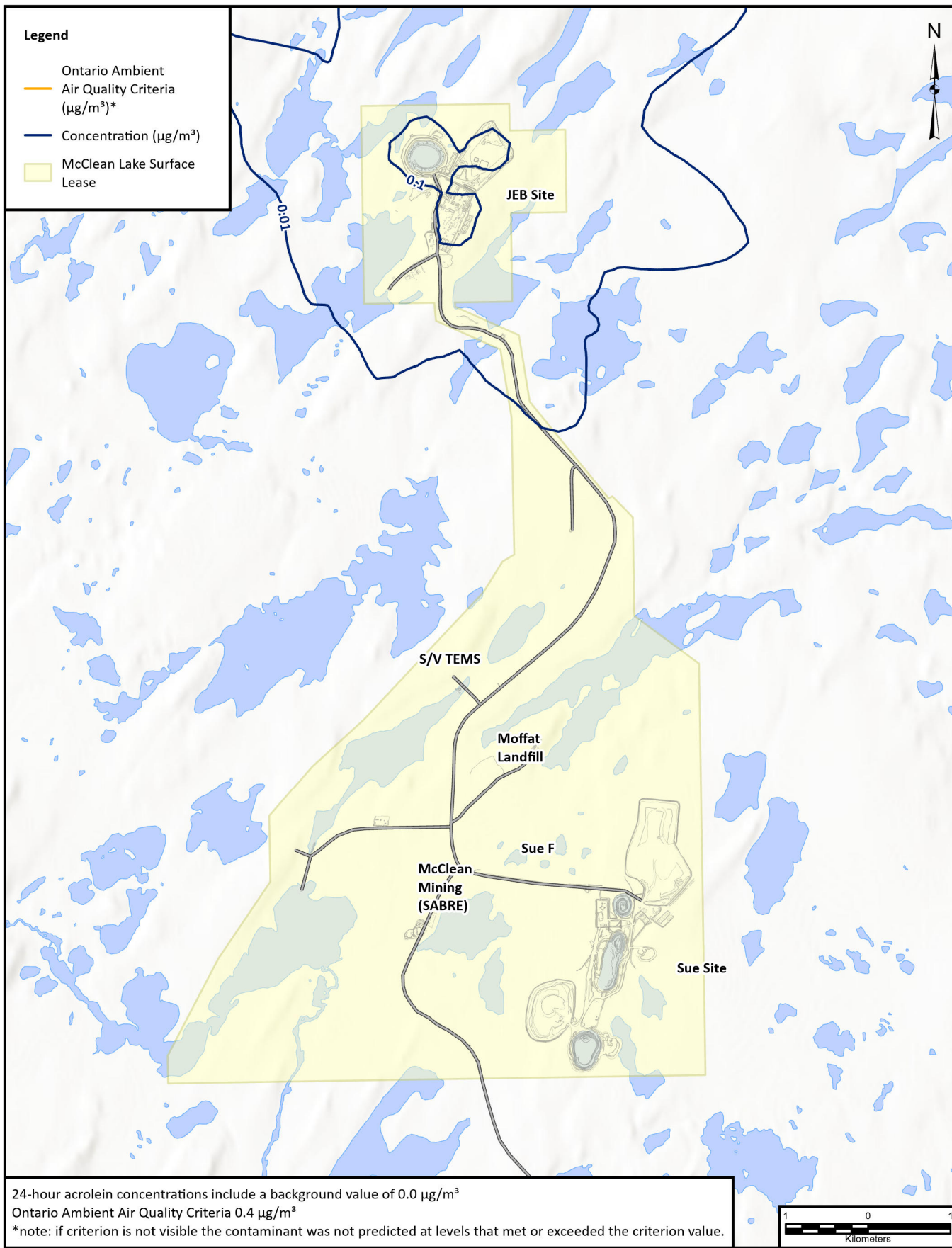
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FIGURE 2.3-75

1-HOUR ACROLEIN CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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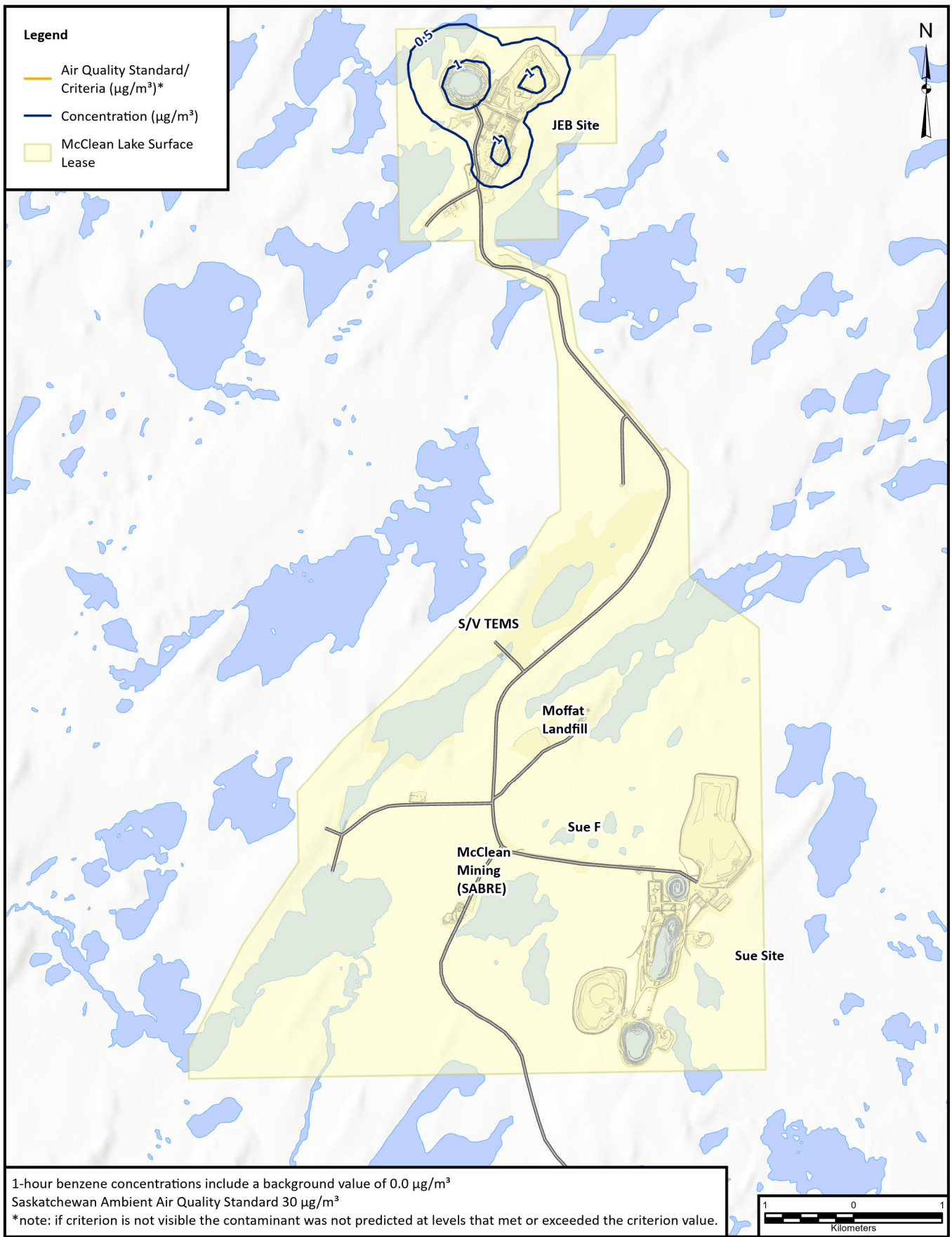
McCLEAN LAKE OPERATION

FIGURE 2.3-76

24-HOUR ACROLEIN CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





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McCLEAN LAKE OPERATION

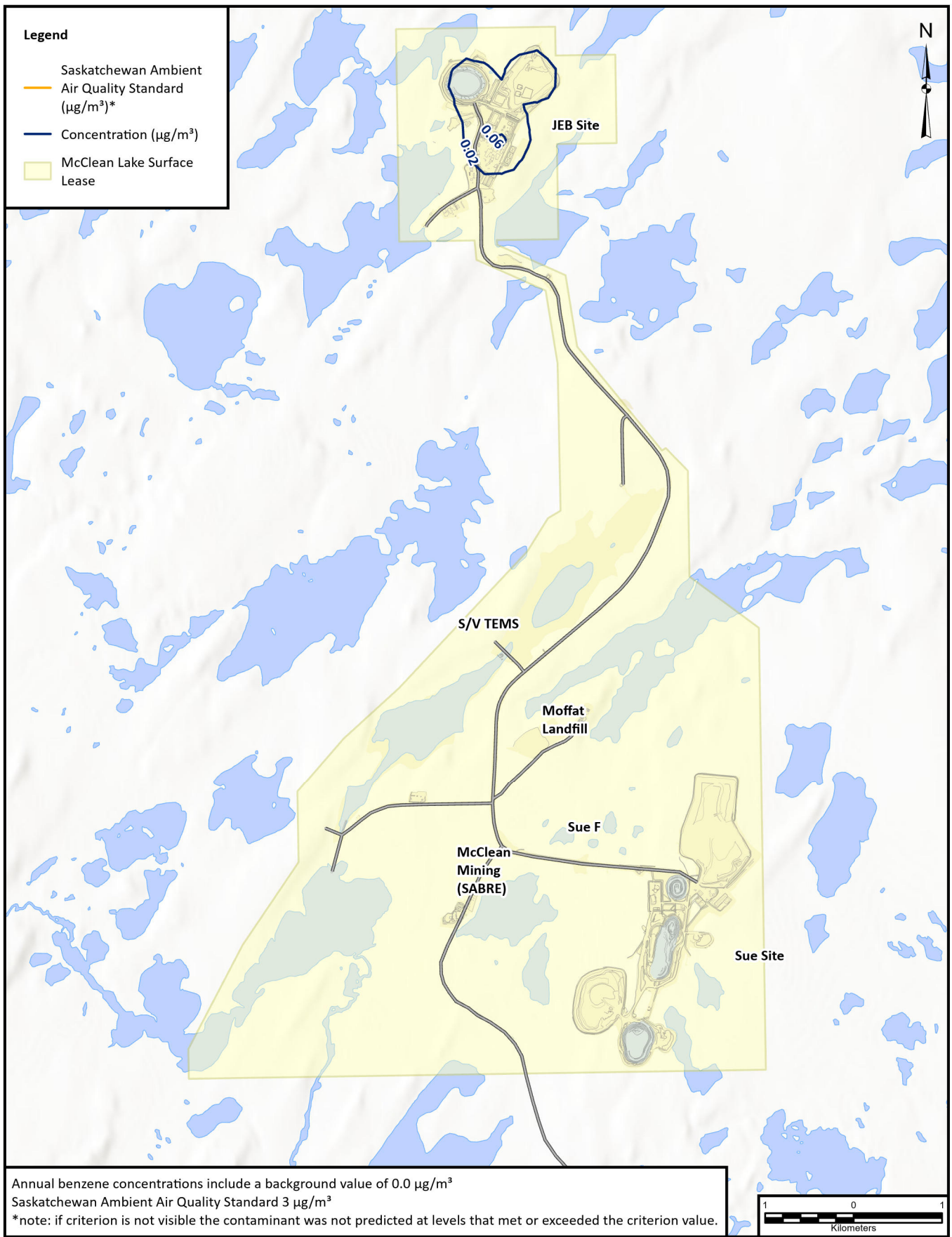
FIGURE 2.3-77

1-HOUR BENZENE CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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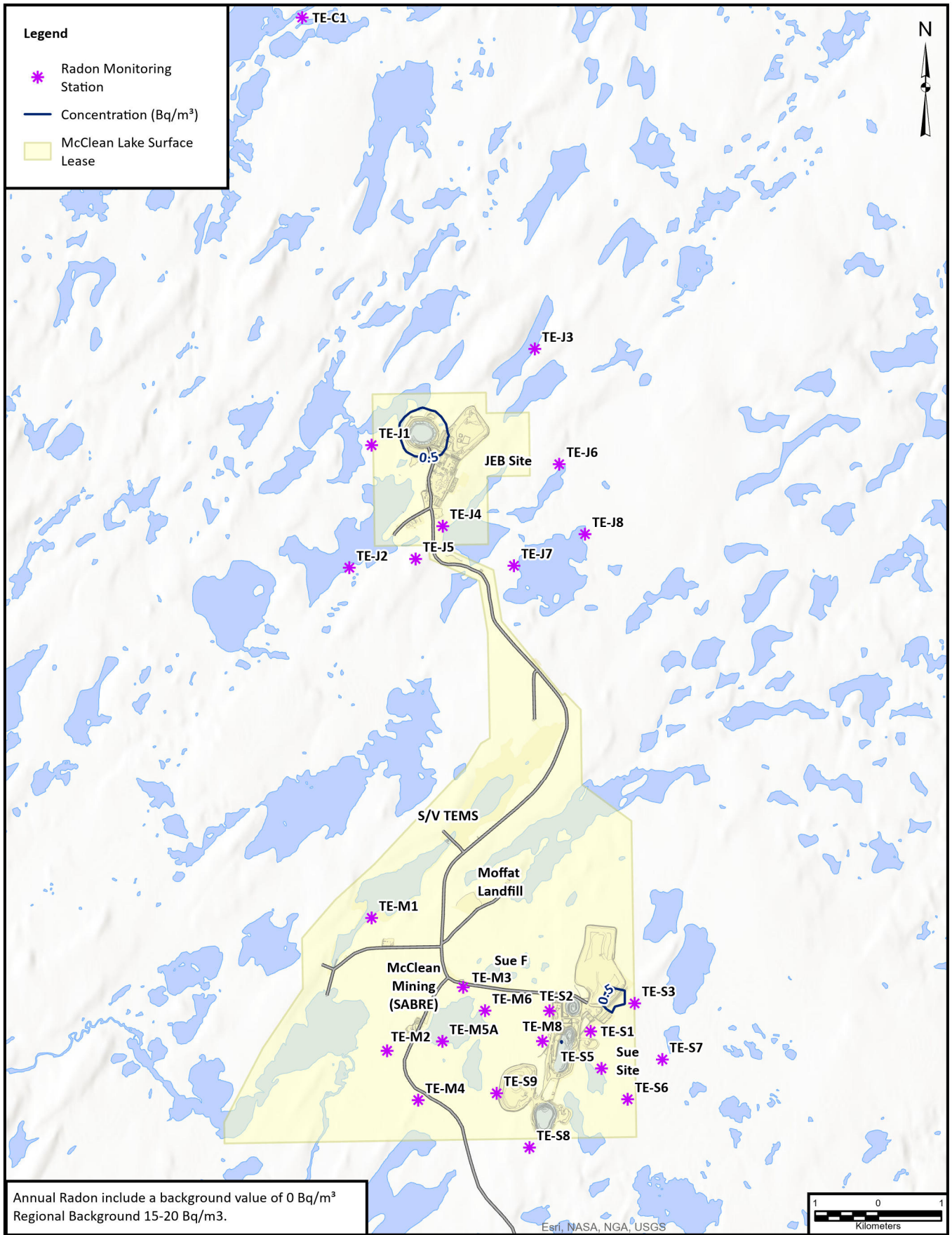
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 Date: 2025-11-20 10:37 AM Scale: 1:60,000
 Data Sources: Nation Topographic Database, IEC,
 ORANO Canada Inc.

McCLEAN LAKE OPERATION

FIGURE 2.3-78
 ANNUAL BENZENE CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO ($\mu\text{g}/\text{m}^3$)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-15 3:22 PM Scale: 1:84,000
 Data Sources: Nation Topographic Database, IEC,
 ORANO Canada Inc.

McCLEAN LAKE OPERATION

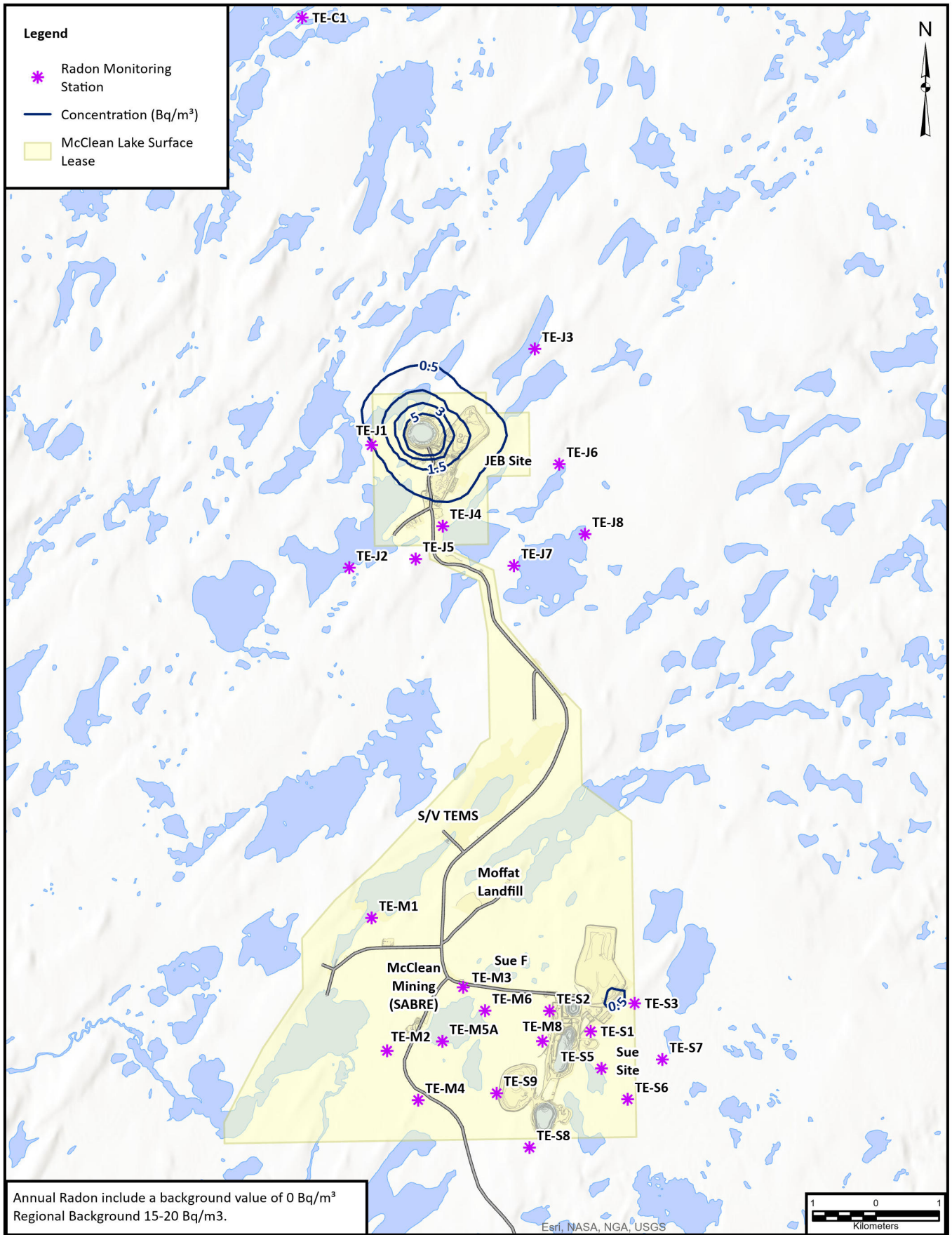
FIGURE 2.3-79

ANNUAL RADON CONCENTRATIONS
 FOR THE DECOMMISSIONING SCENARIO (Bq/m³)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



orano



Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-15 3:22 PM Scale: 1:84,000
 Data Sources: Nation Topographic Database, IEC,
 ORANO Canada Inc.

McCLEAN LAKE OPERATION

FIGURE 2.3-80

ANNUAL RADON CONCENTRATIONS
 FOR THE POST-DECOMMISSIONING SCENARIO (Bq/m³)

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



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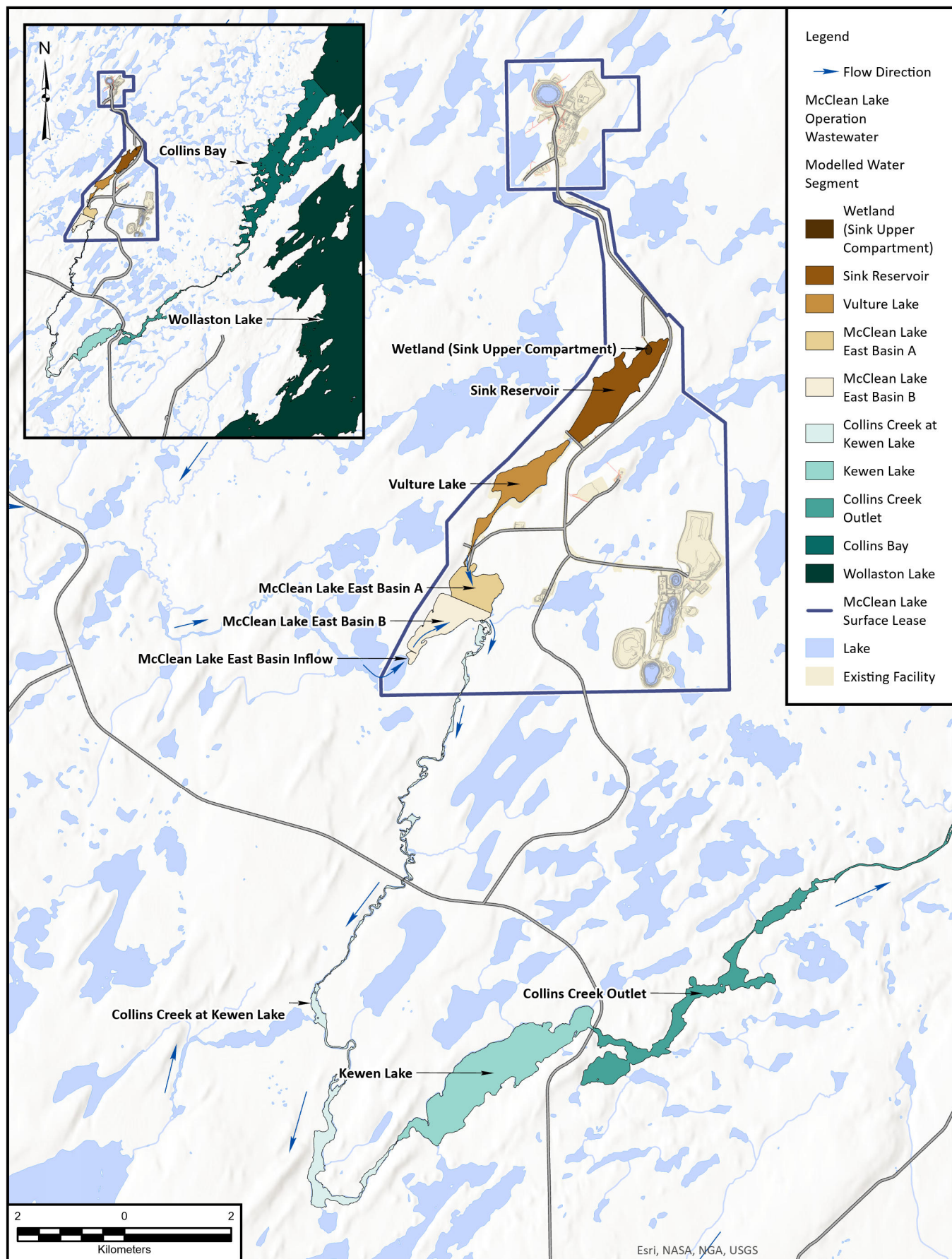


FIGURE 3.2-1
MODELLED WATER SEGMENTS

Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-01 1:28 PM Scale: 1:100,000
 Data Sources: Natural Resources Canada, Geobase®, Nation
 Topographic Database, ORANO Canada Inc.

McCLEAN LAKE OPERATION

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



Figure 3.5-1 Water Quality Predictions – Base Case - Calcium

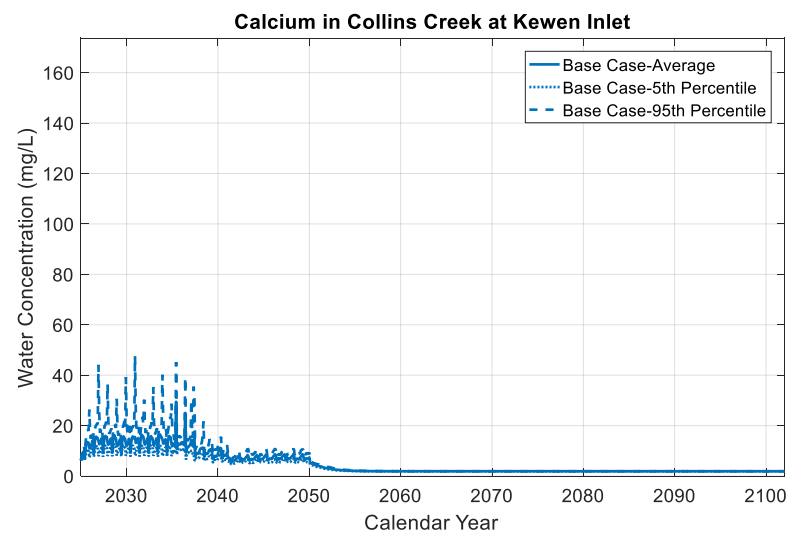
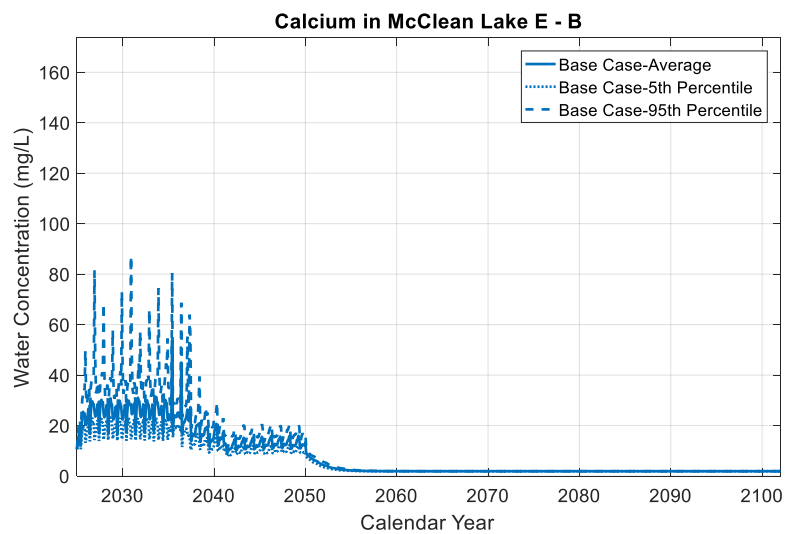
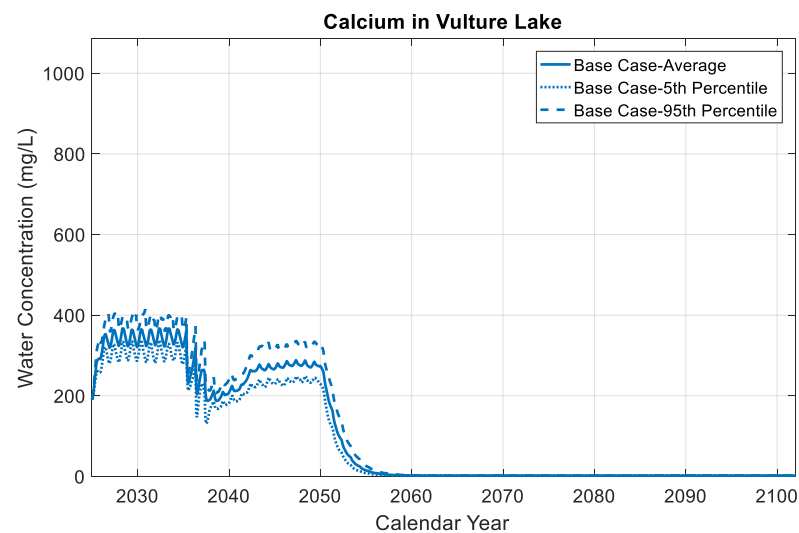
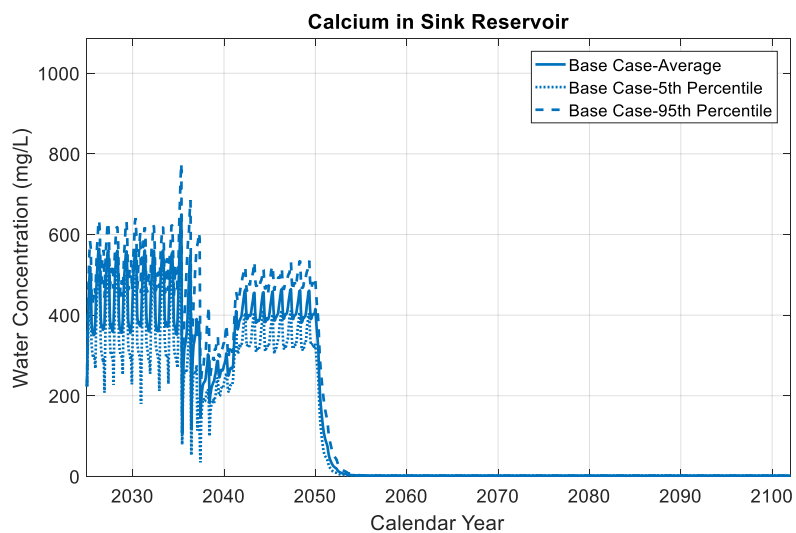


Figure 3.5-2 Water Quality Predictions – Base Case – Total Ammonia

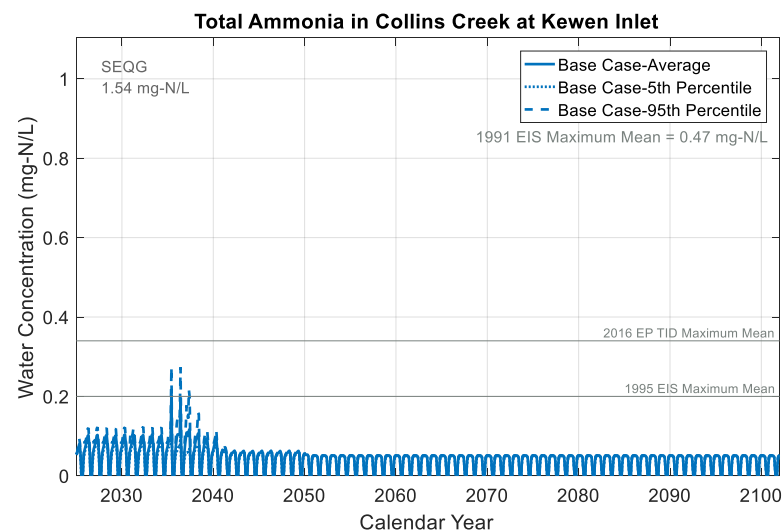
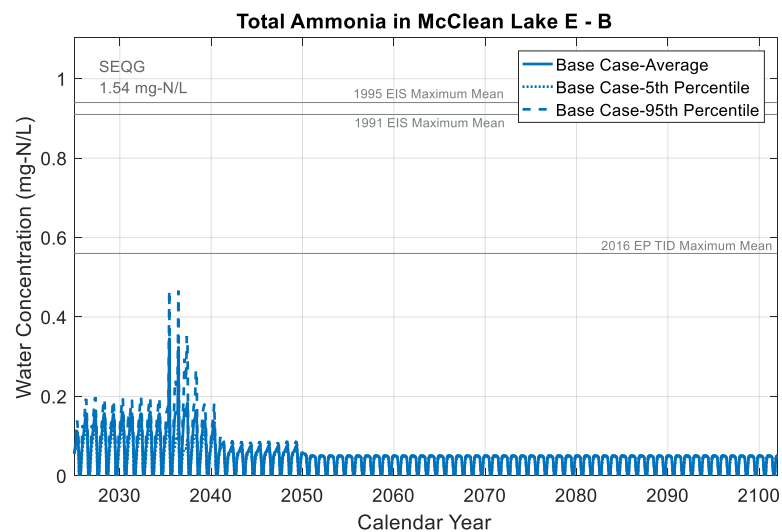
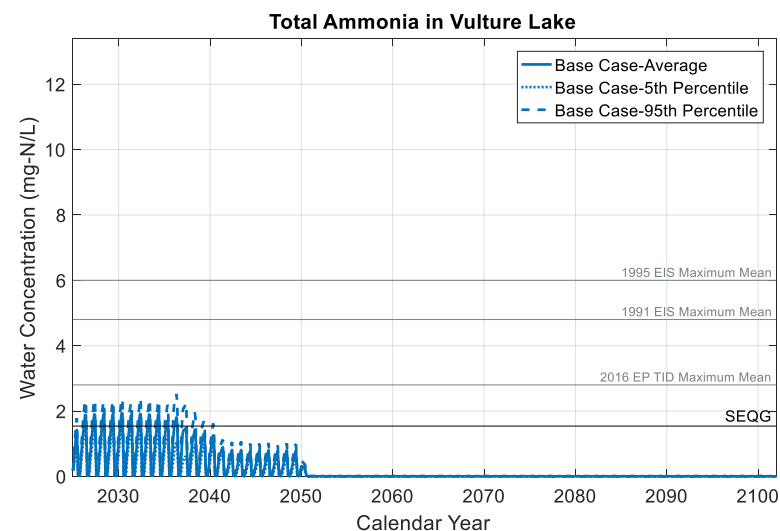
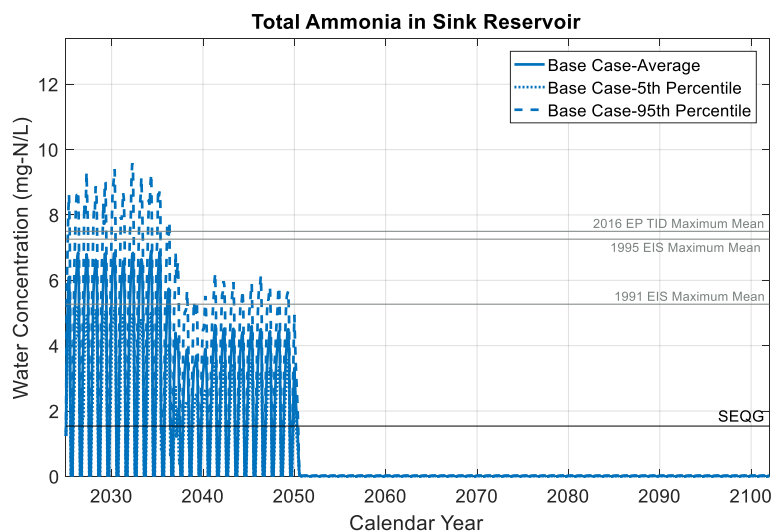


Figure 3.5-3 Water Quality Predictions – Base Case – Un-ionized Ammonia

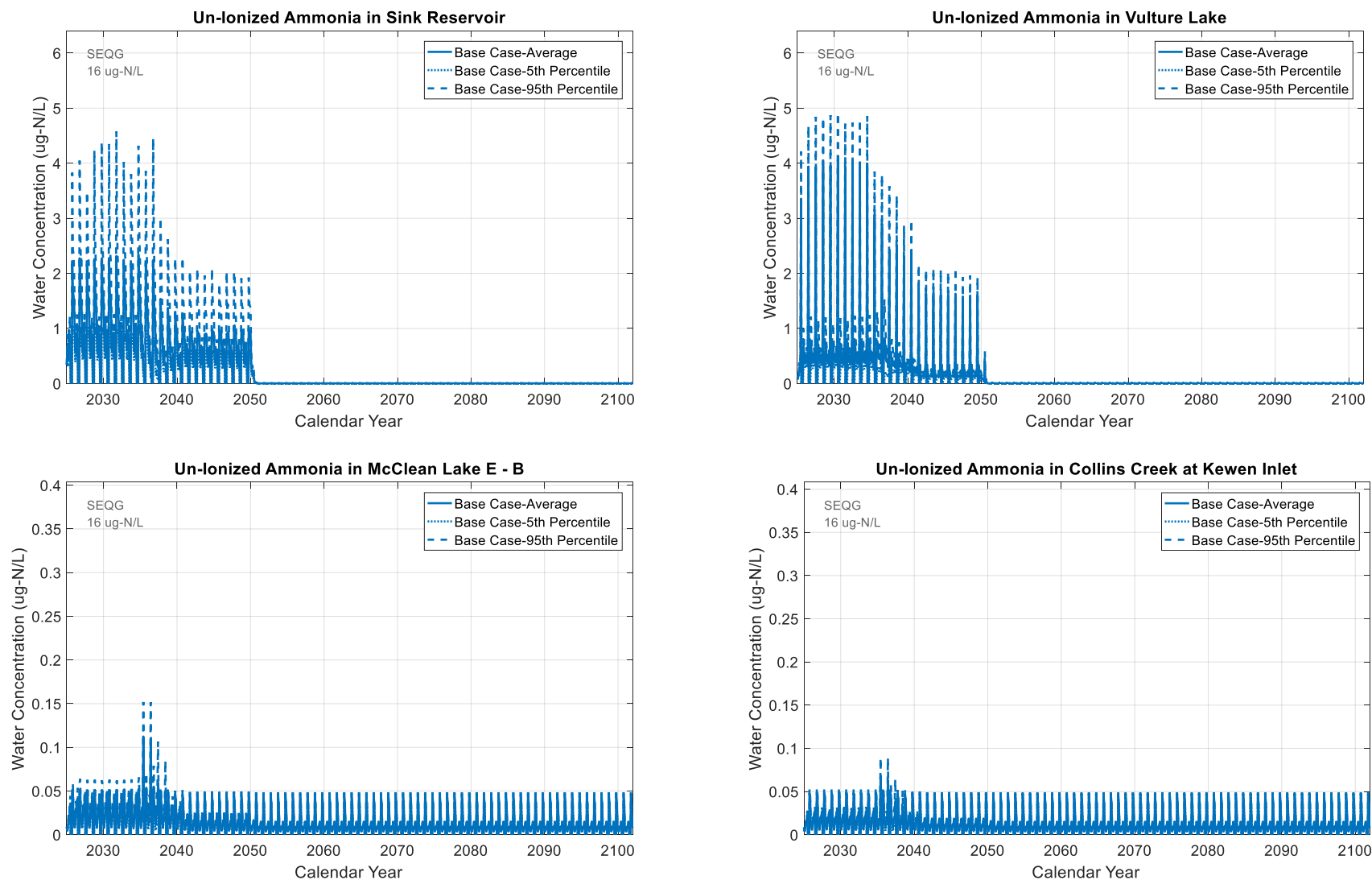


Figure 3.5-4 Water Quality Predictions – Base Case - Chloride

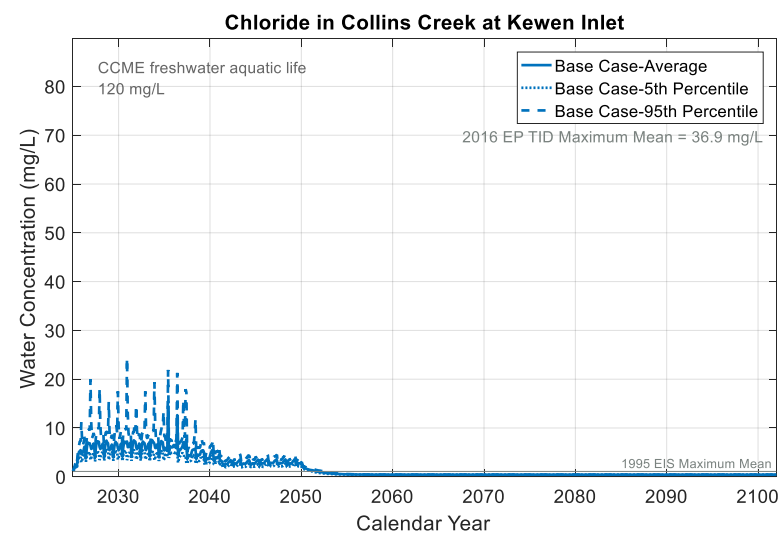
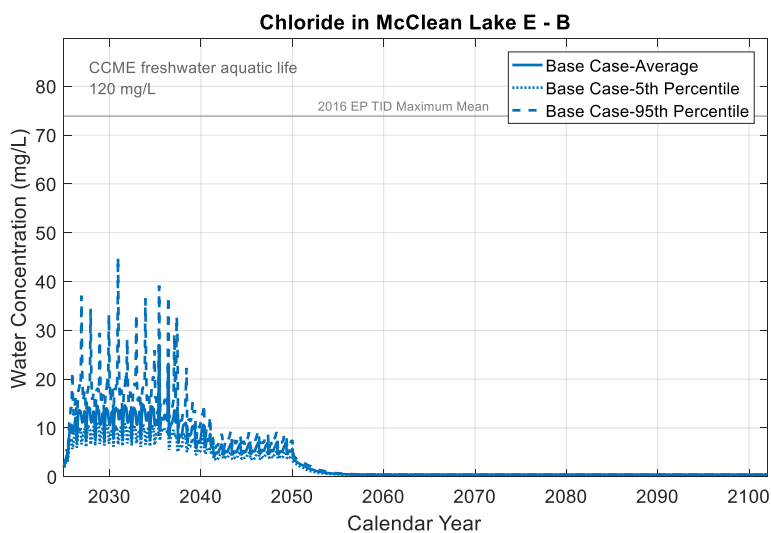
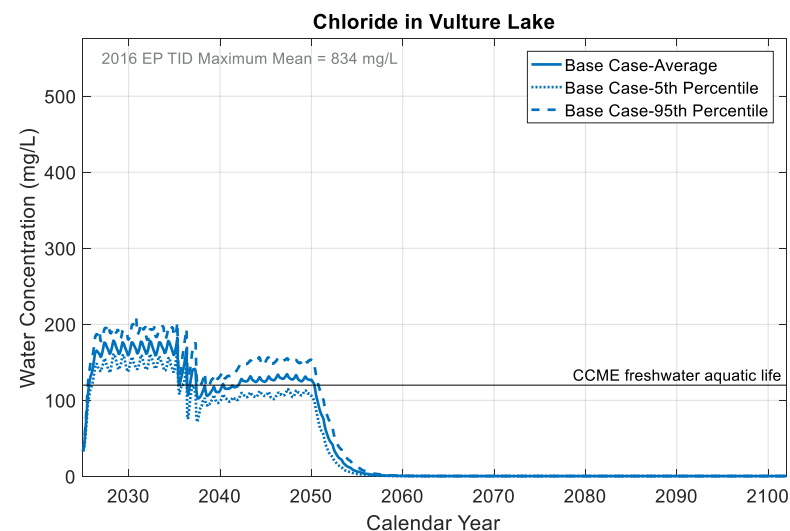
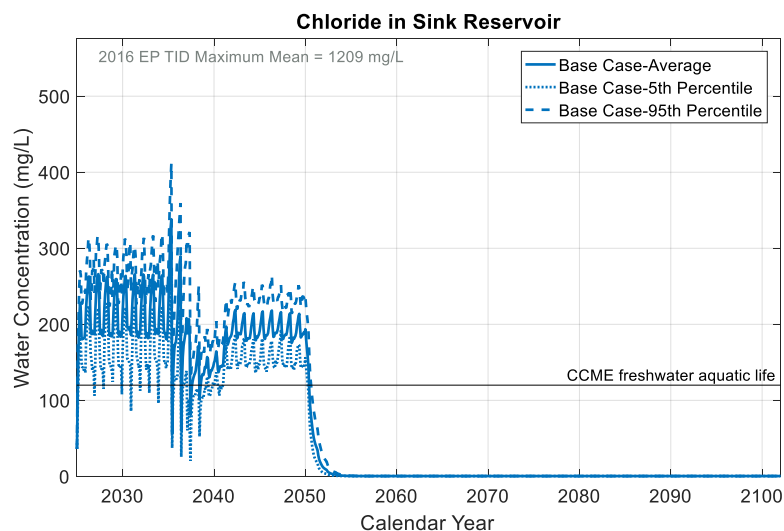


Figure 3.5-5 Water Quality Predictions – Base Case – Fluoride

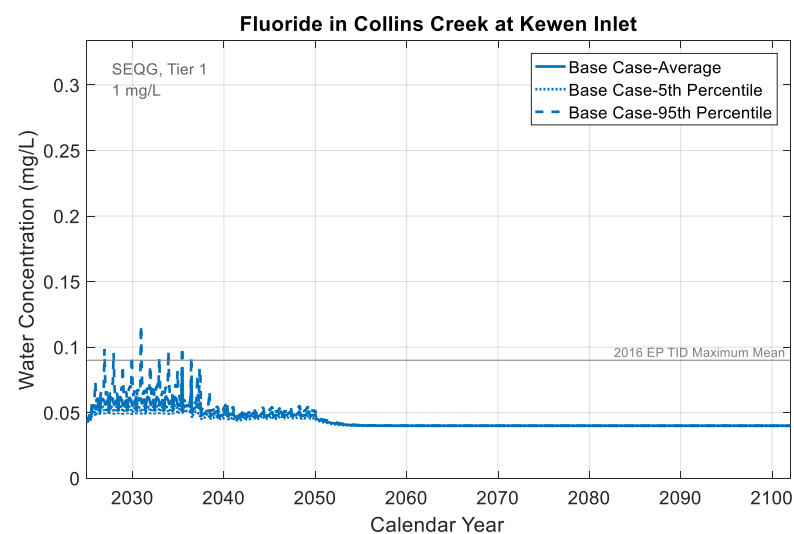
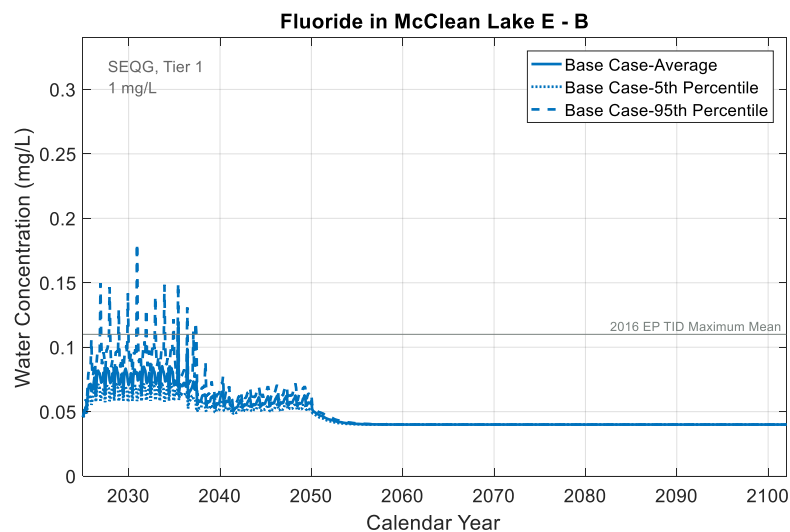
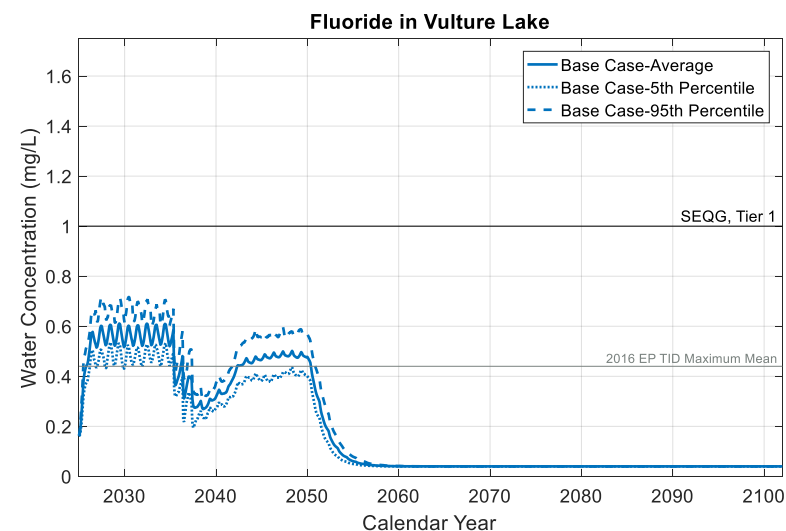
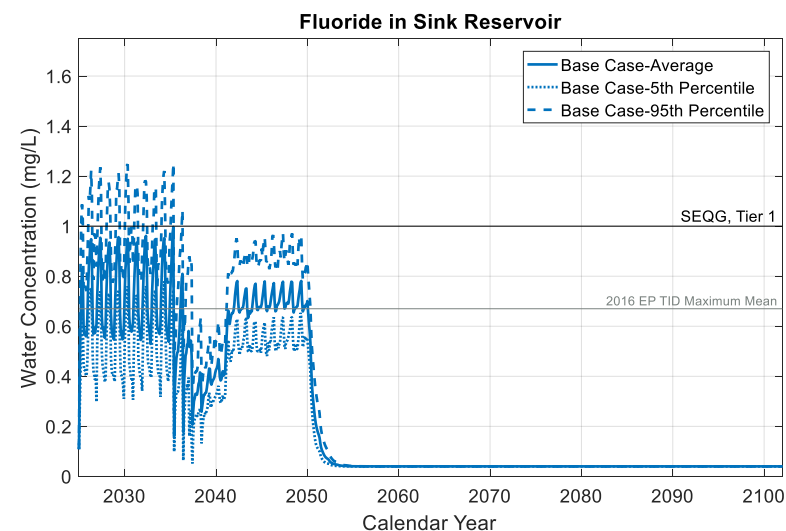


Figure 3.5-6 Water Quality Predictions – Base Case – Nitrate

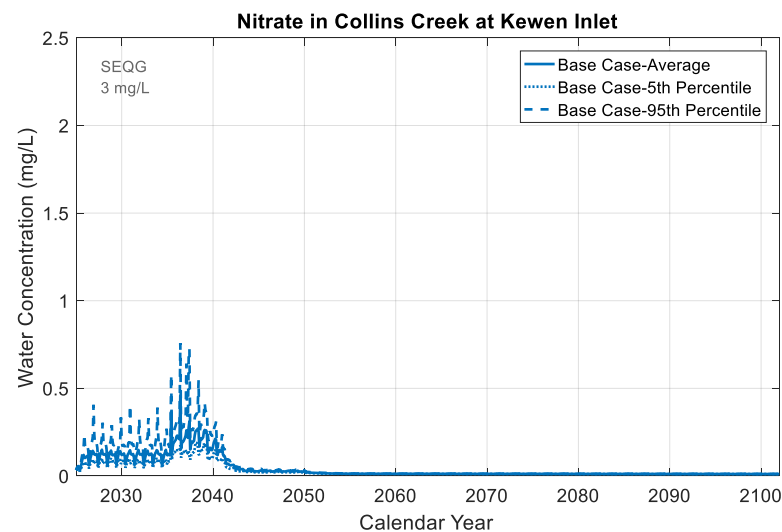
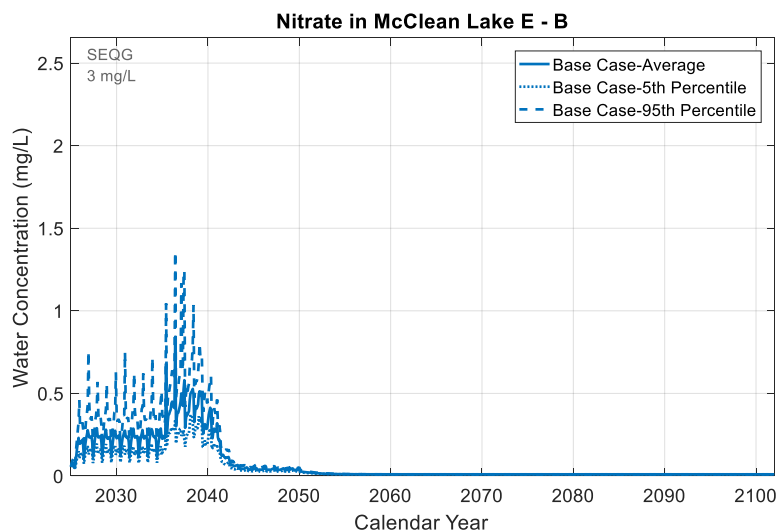
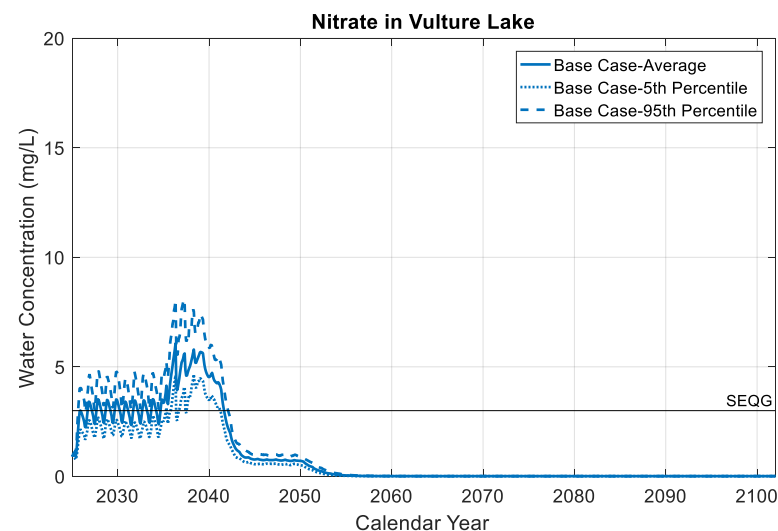
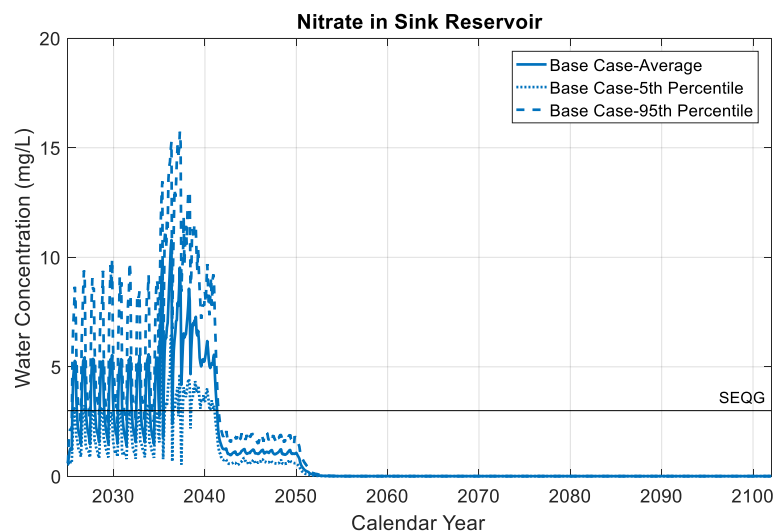


Figure 3.5-7 Water Quality Predictions – Base Case - Potassium

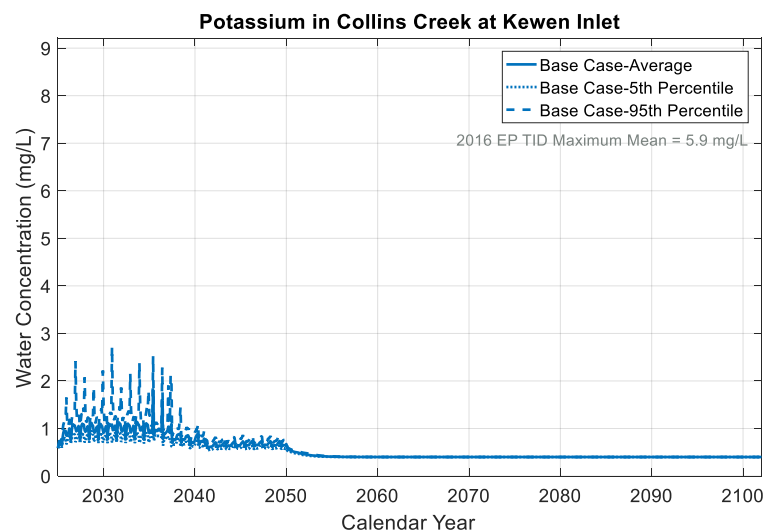
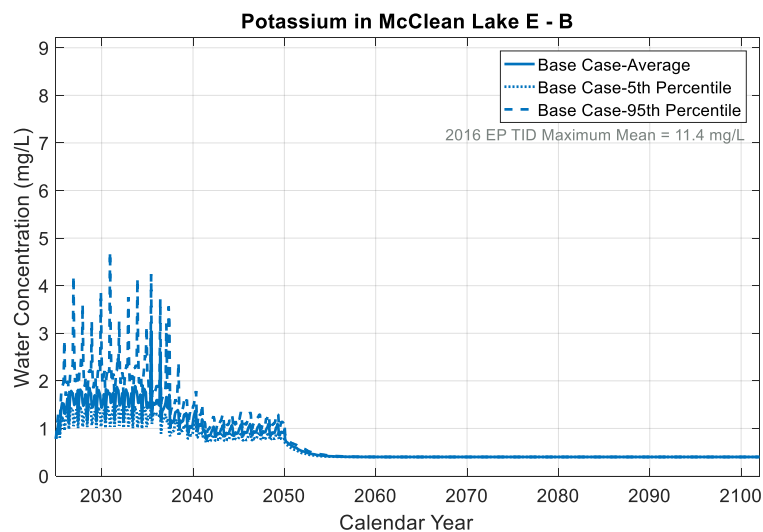
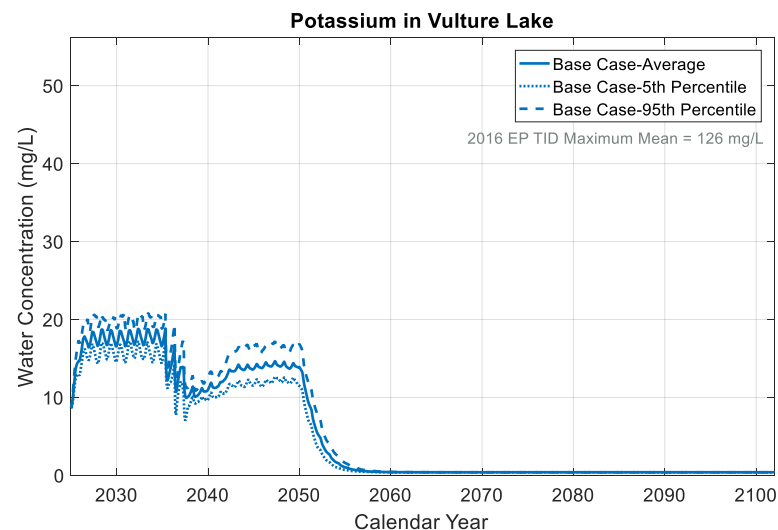
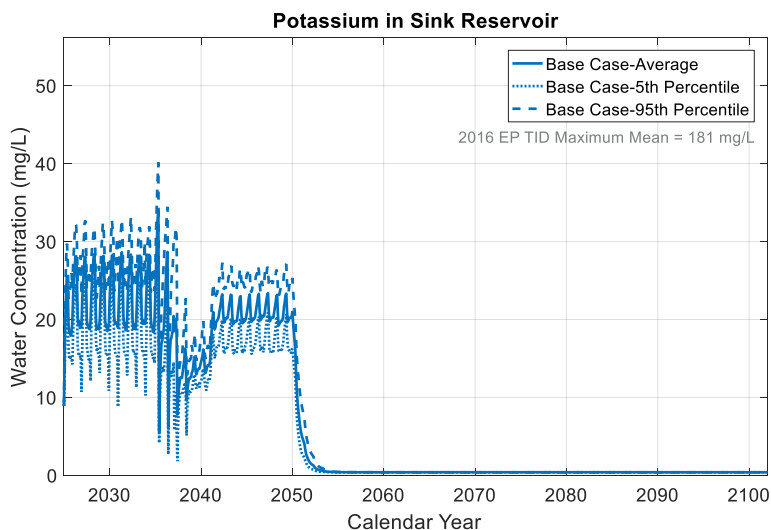


Figure 3.5-8 Water Quality Predictions – Base Case - Sulphate

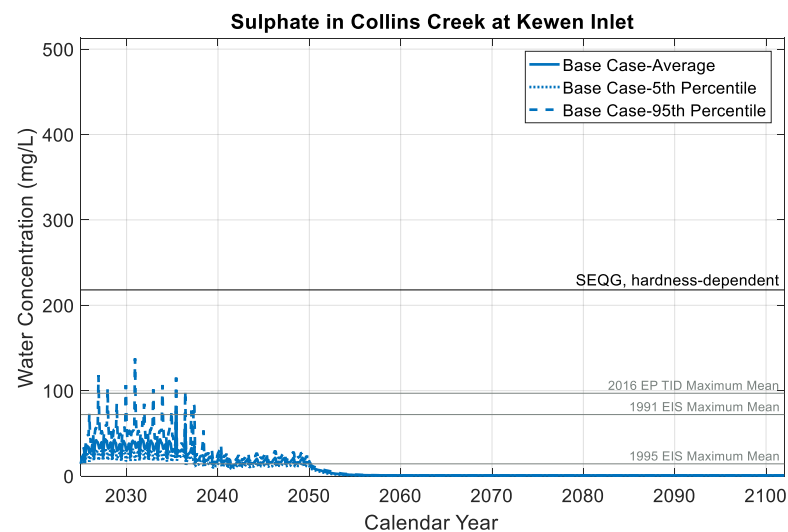
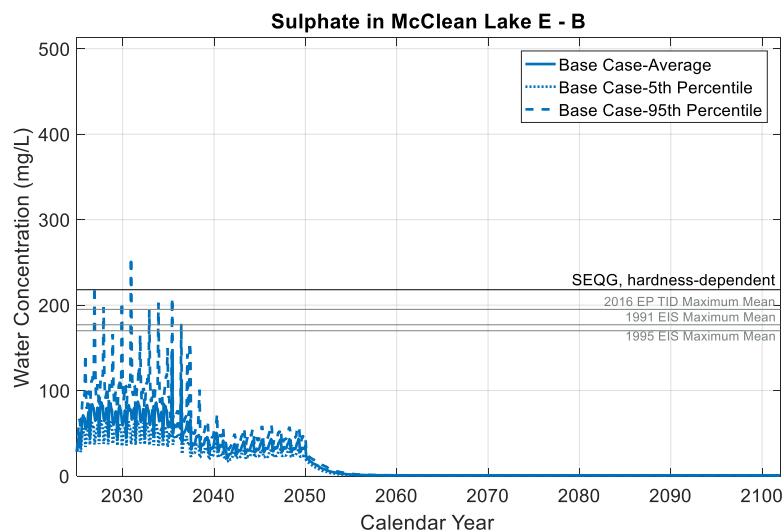
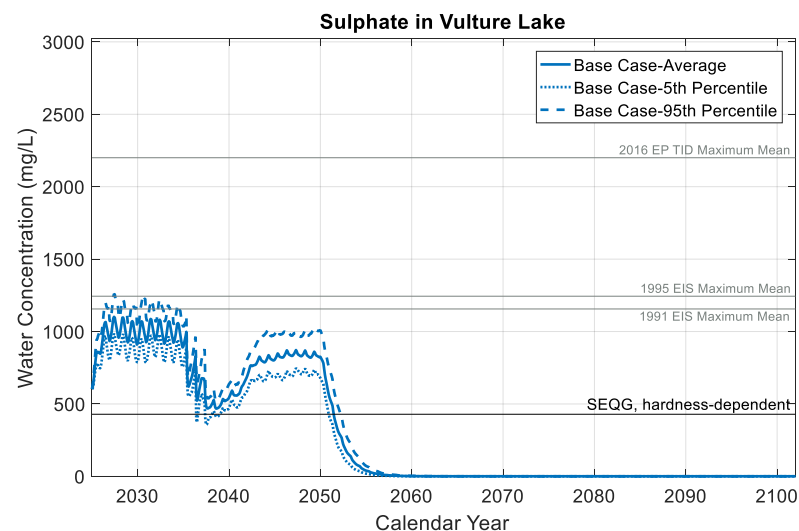
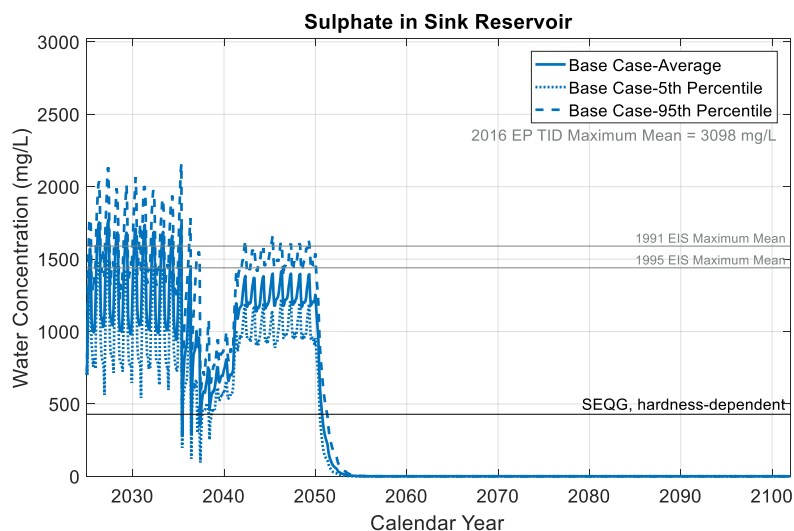


Figure 3.5-9 Water Quality Predictions – Base Case – Total Dissolved Solids

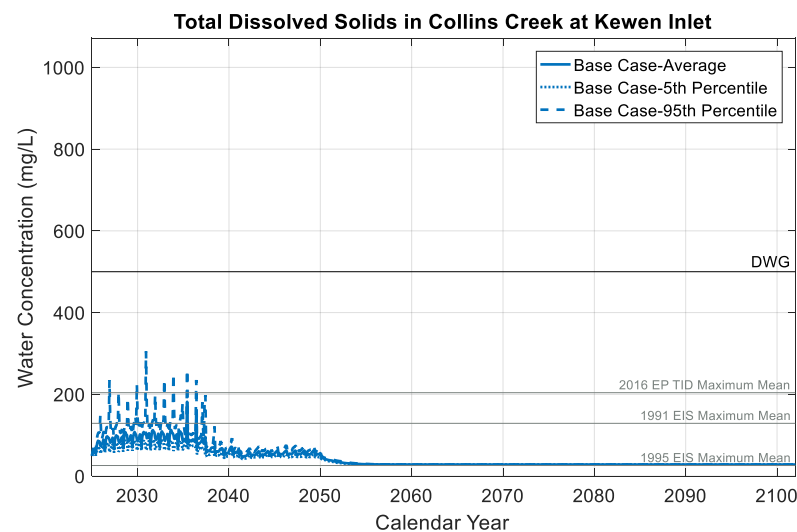
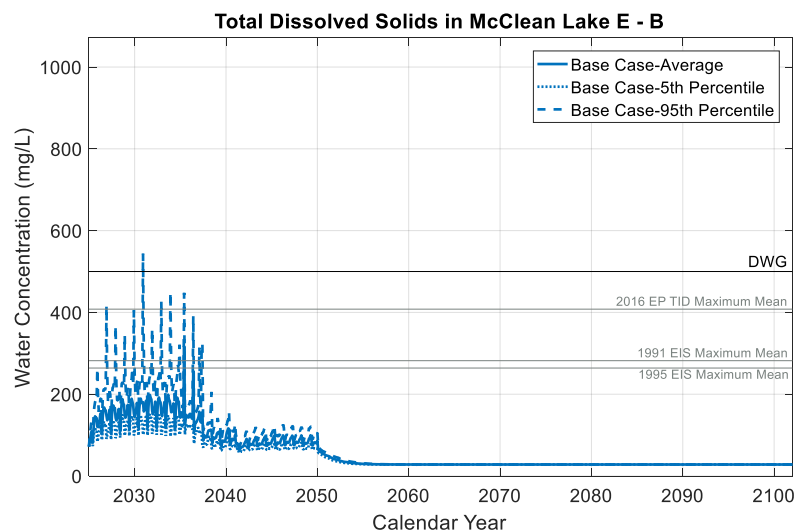
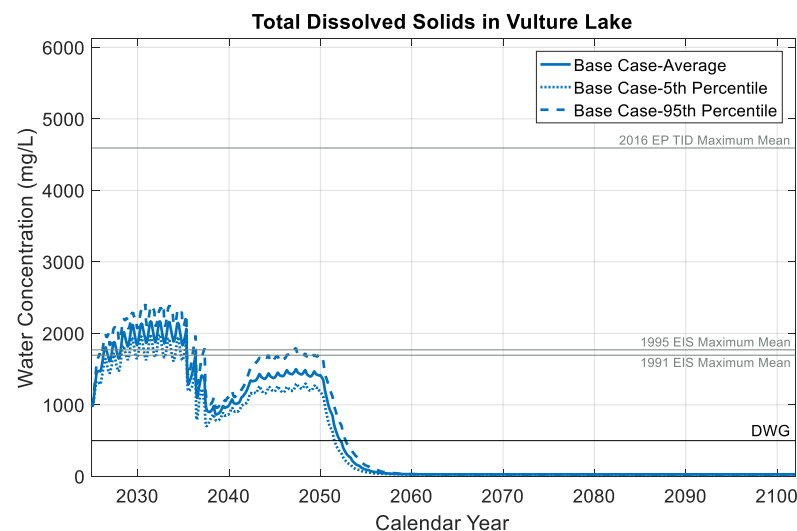
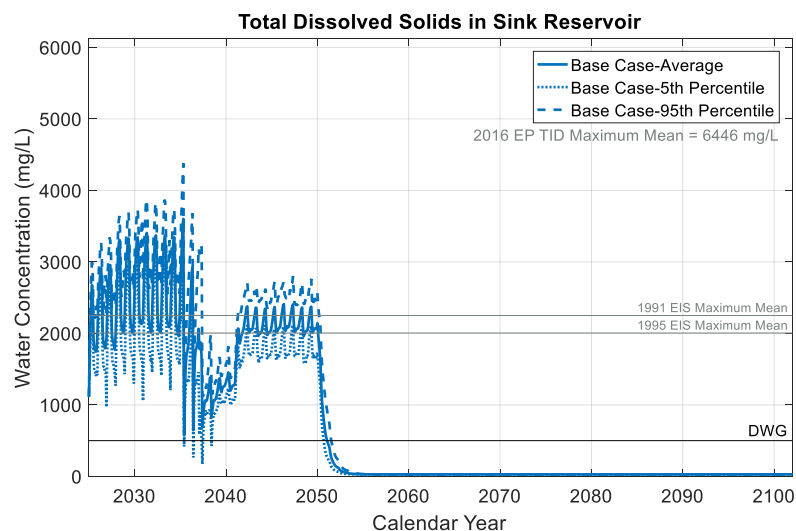


Figure 3.5-10 Water Quality Predictions – Base Case – Aluminum

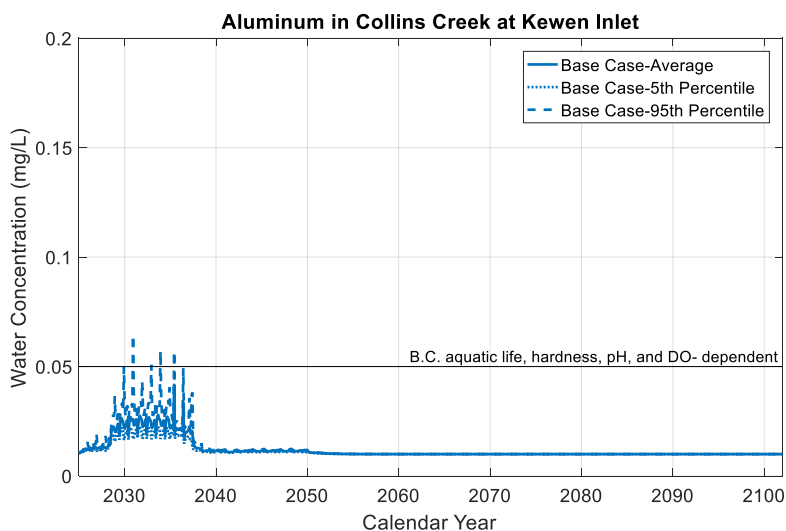
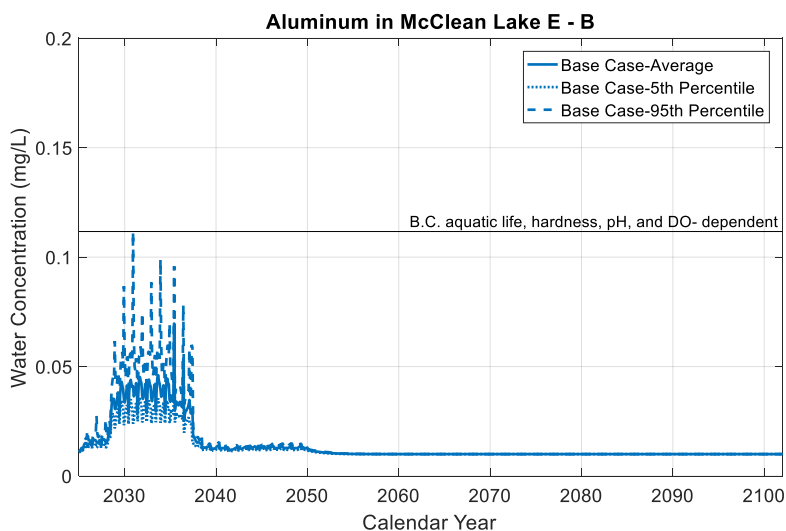
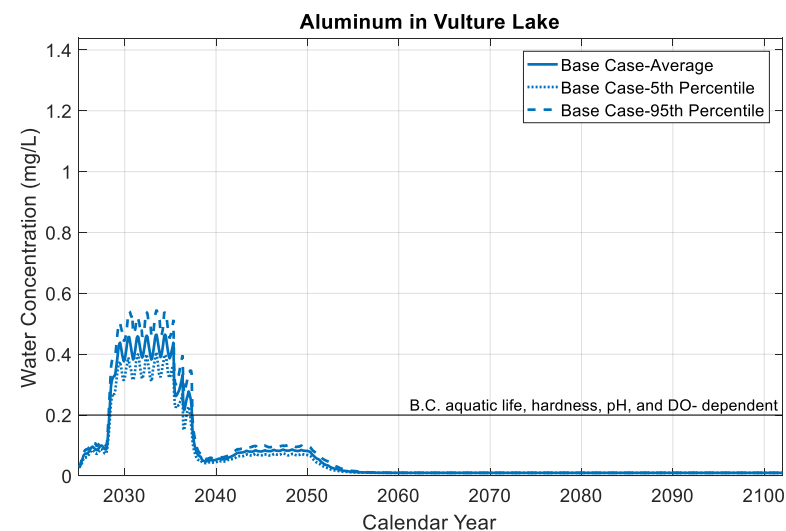
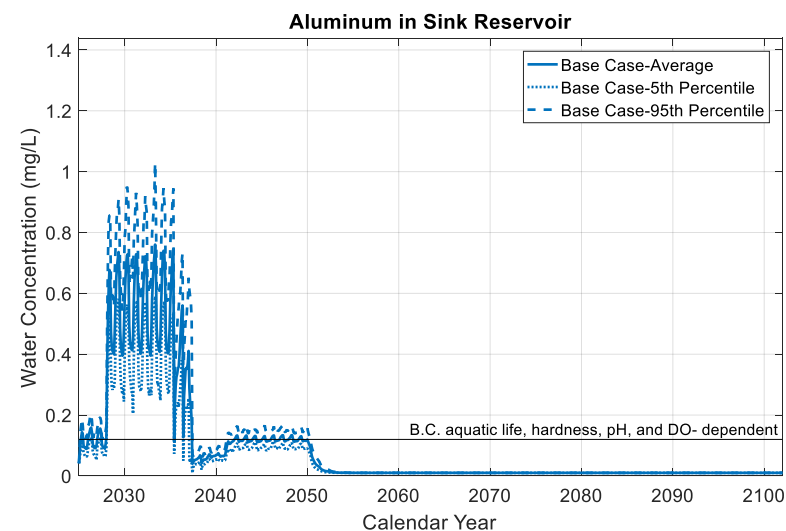


Figure 3.5-11 Water Quality Predictions – Base Case - Arsenic

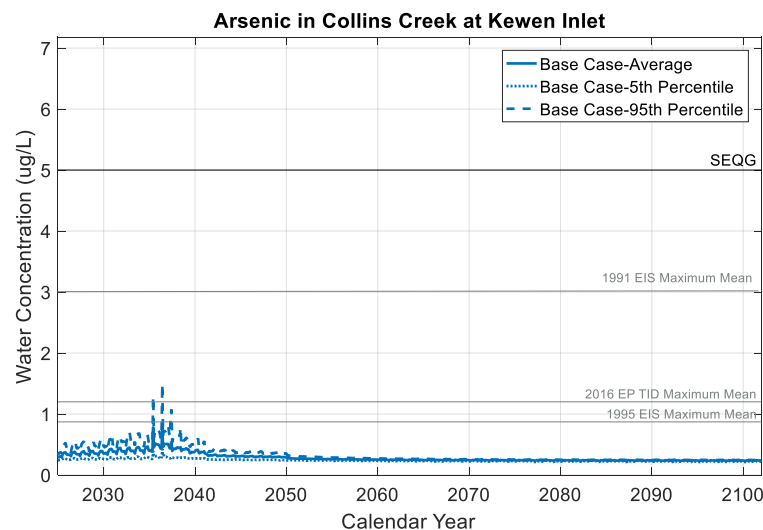
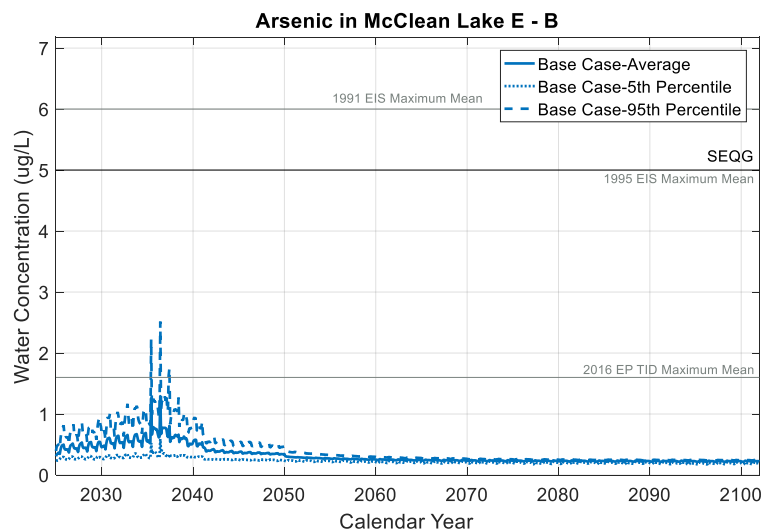
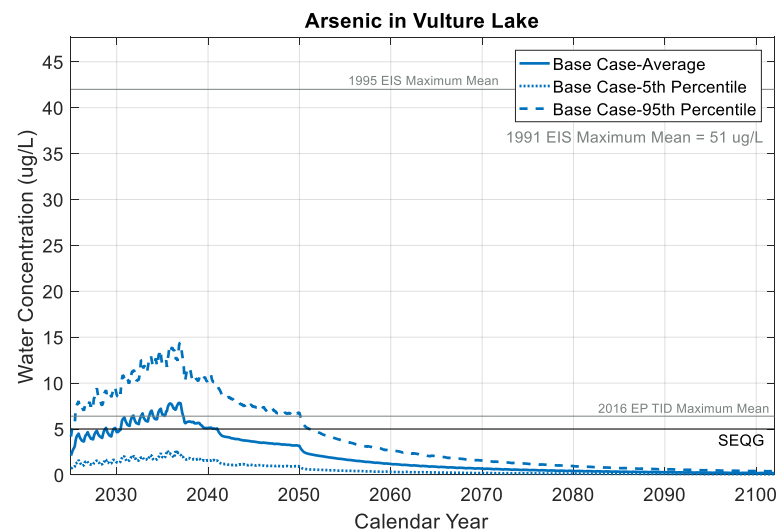
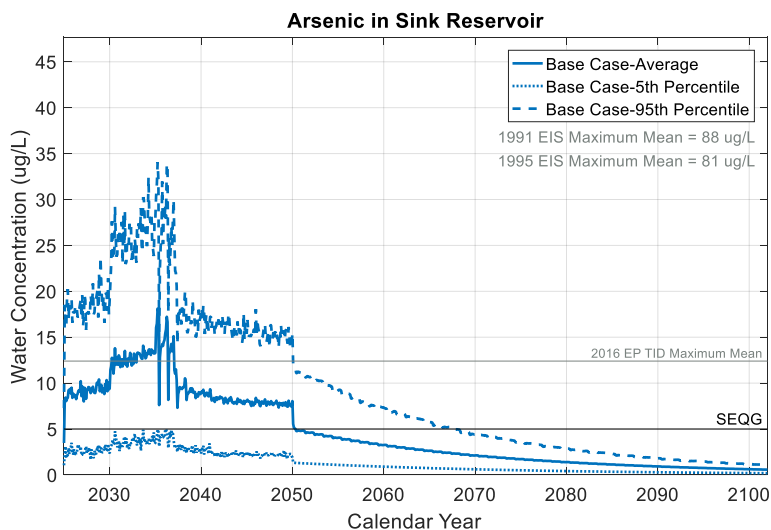


Figure 3.5-12 Water Quality Predictions – Base Case – Cadmium

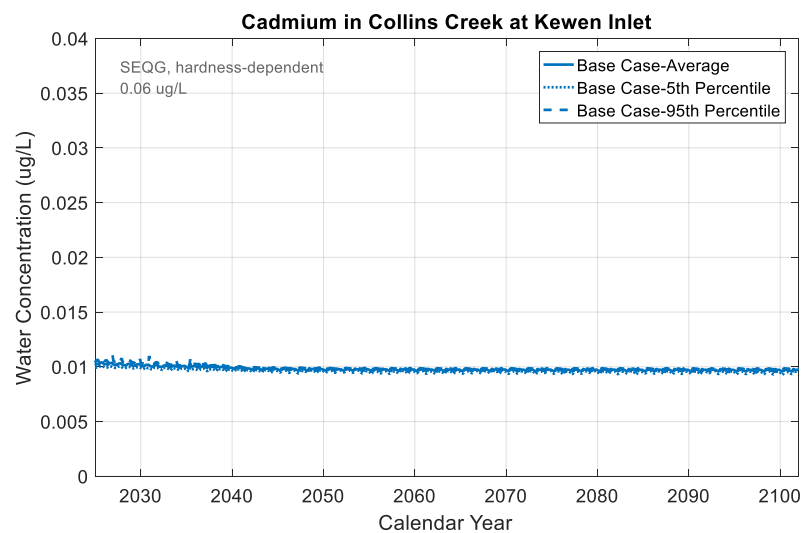
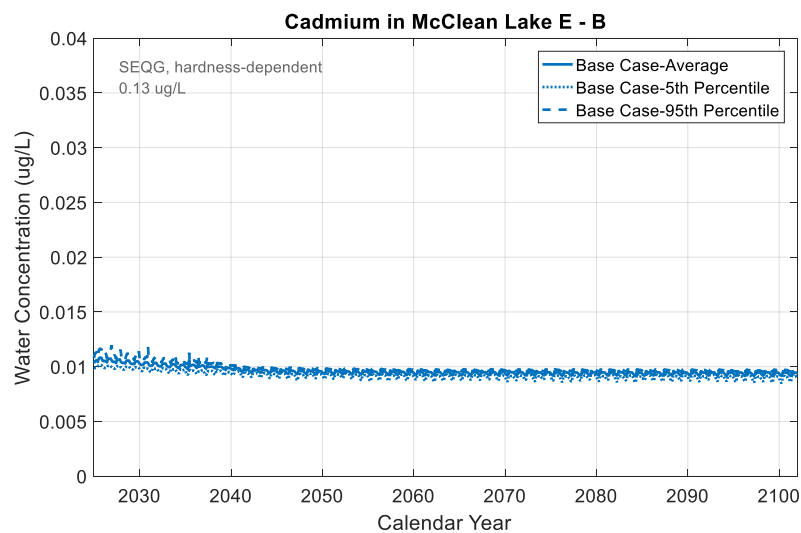
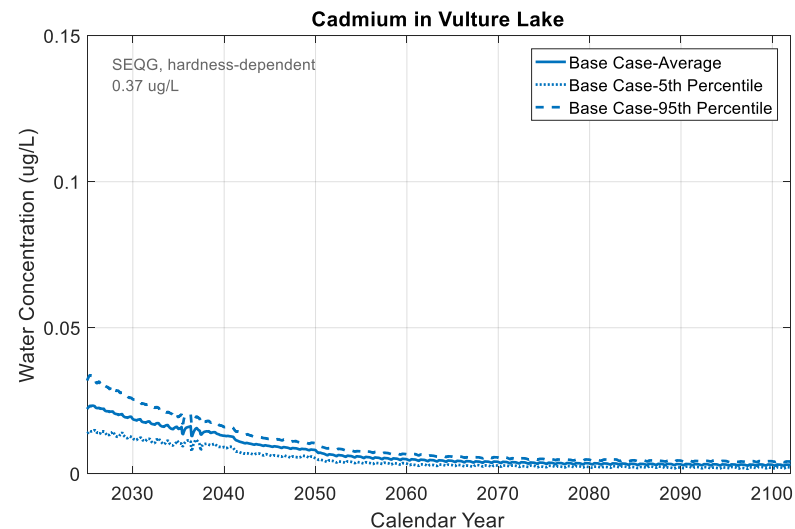
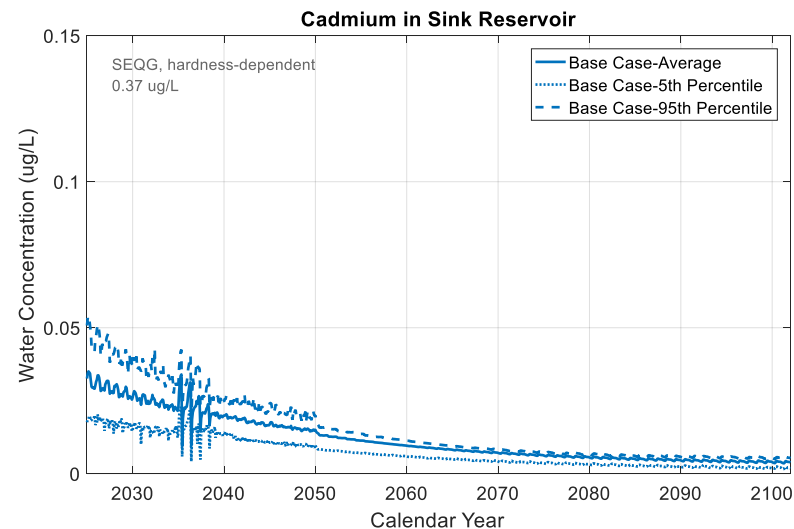


Figure 3.5-13 Water Quality Predictions – Base Case - Chromium

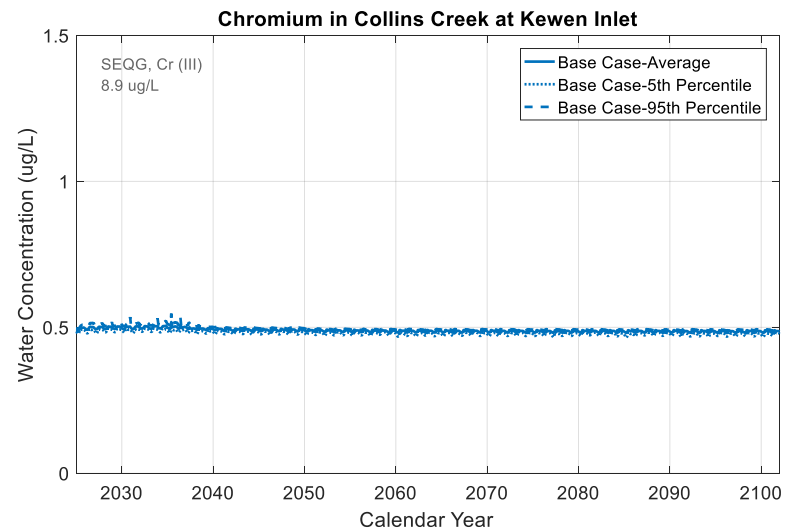
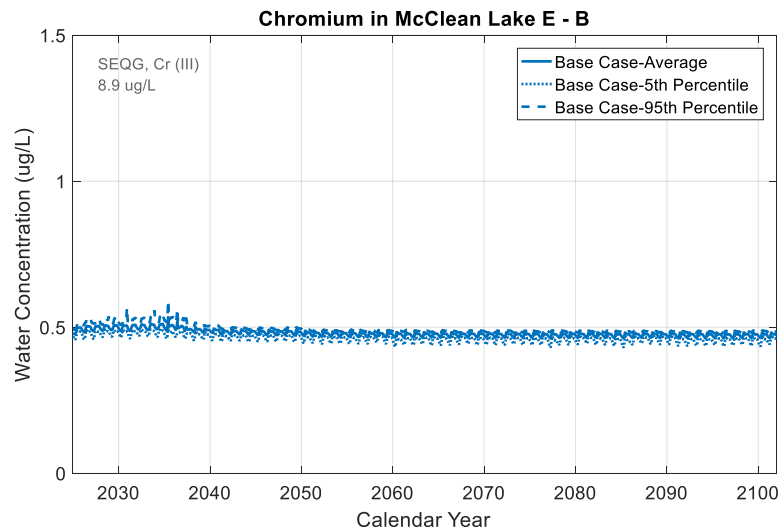
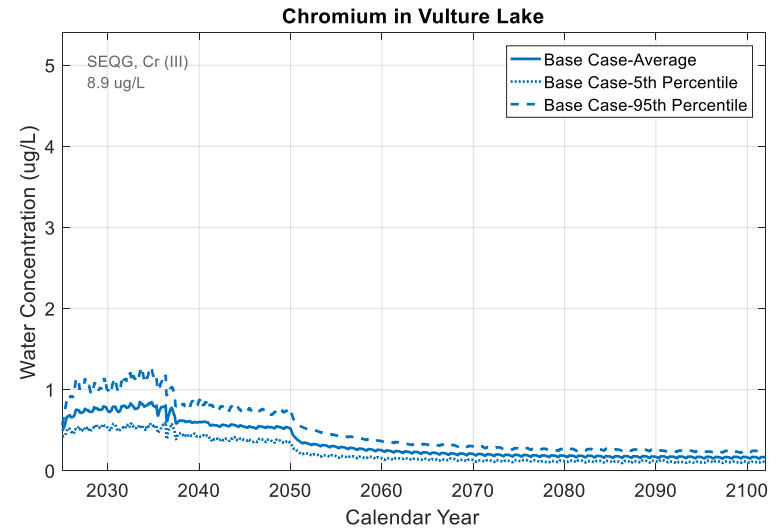
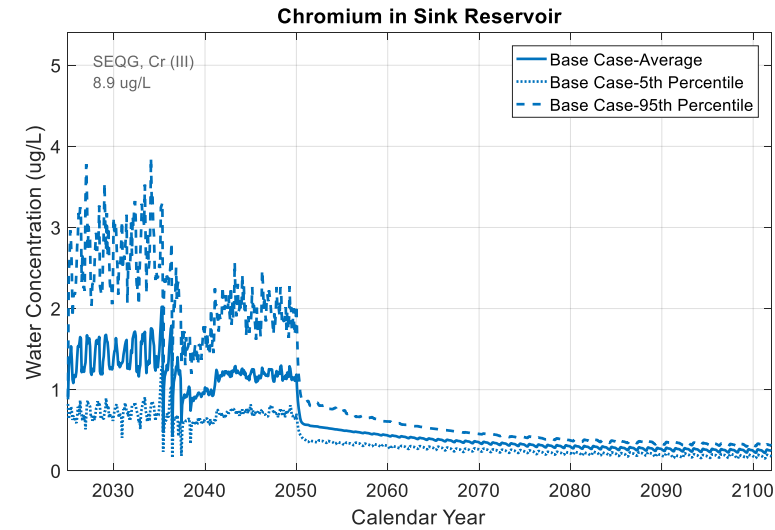


Figure 3.5-14 Water Quality Predictions – Base Case - Cobalt

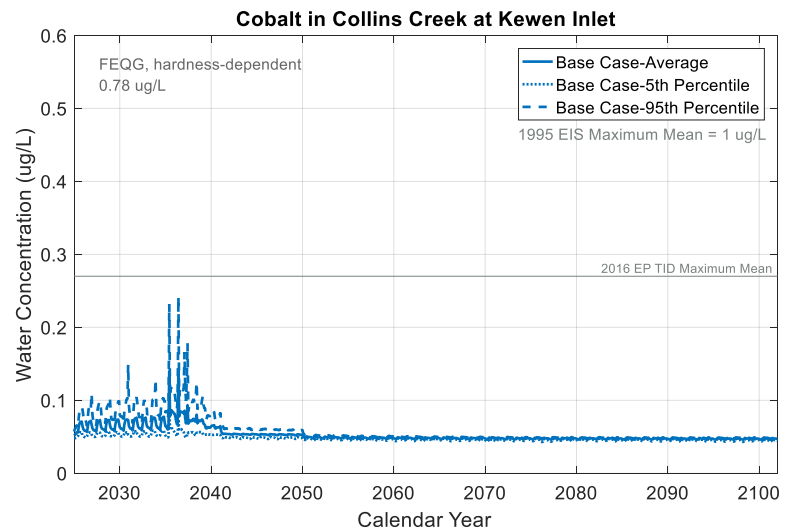
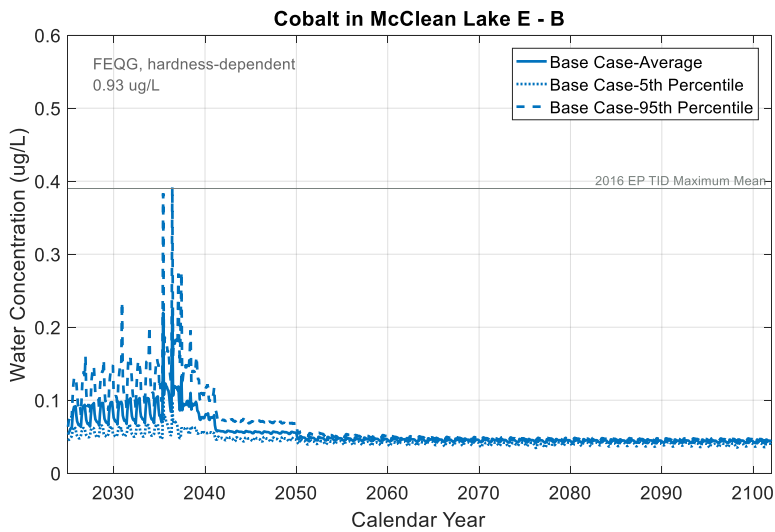
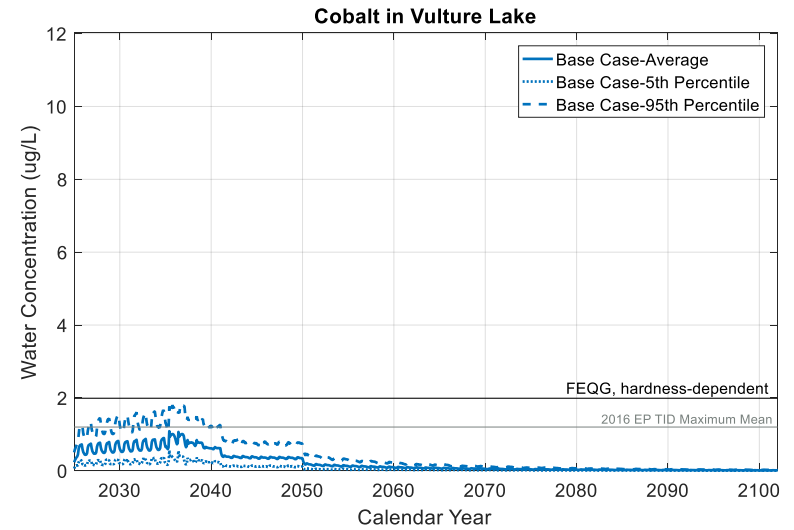
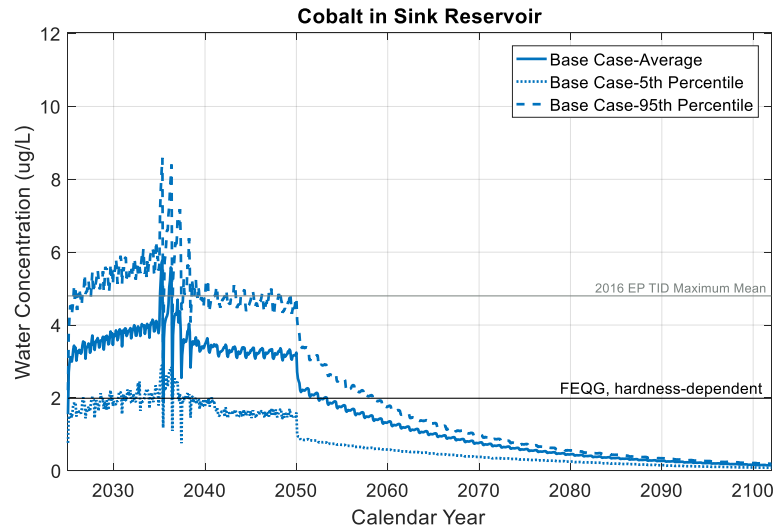


Figure 3.5-15 Water Quality Predictions – Base Case – Copper

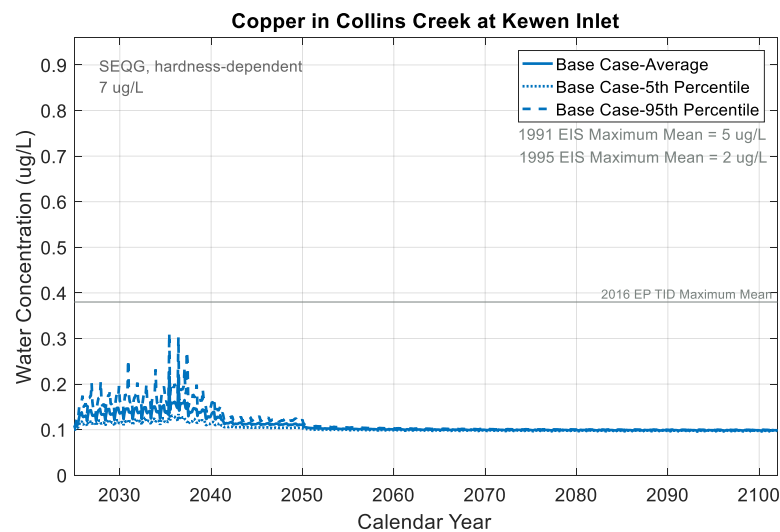
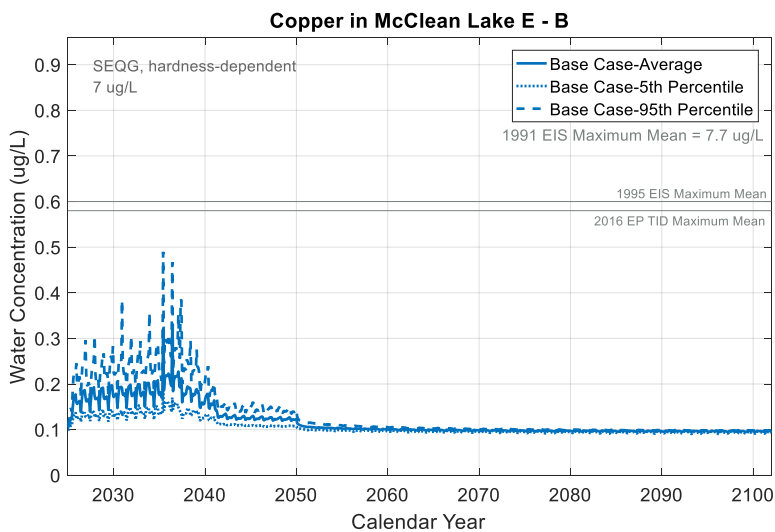
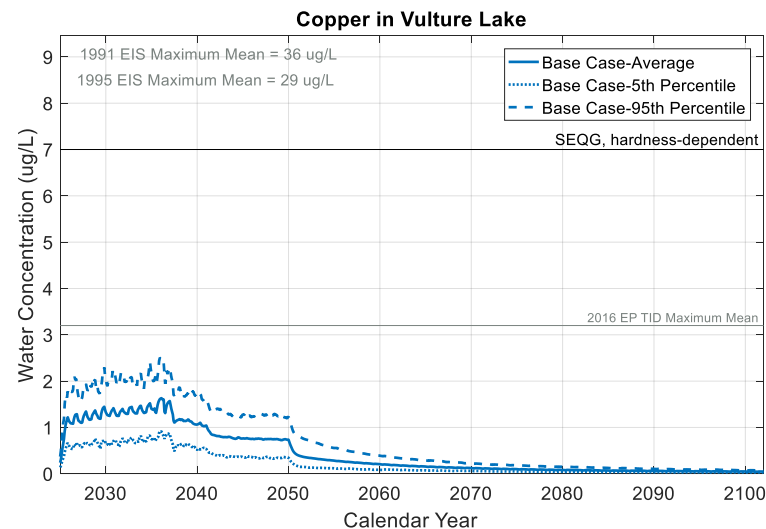
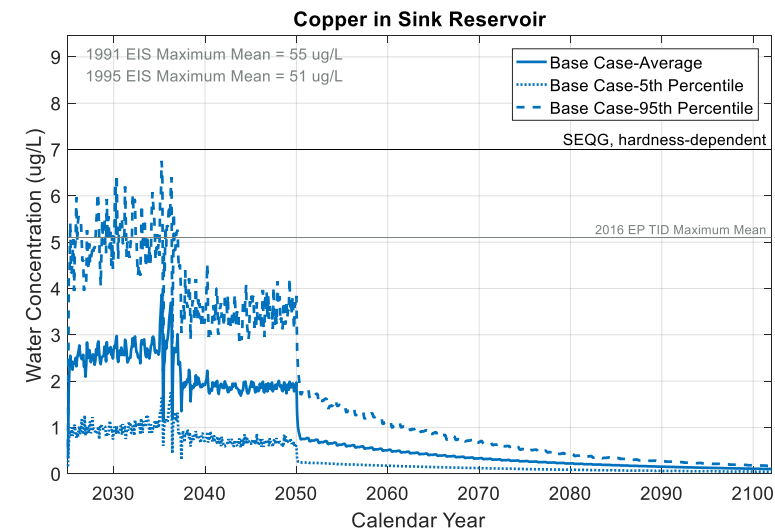


Figure 3.5-16 Water Quality Predictions – Base Case – Iron

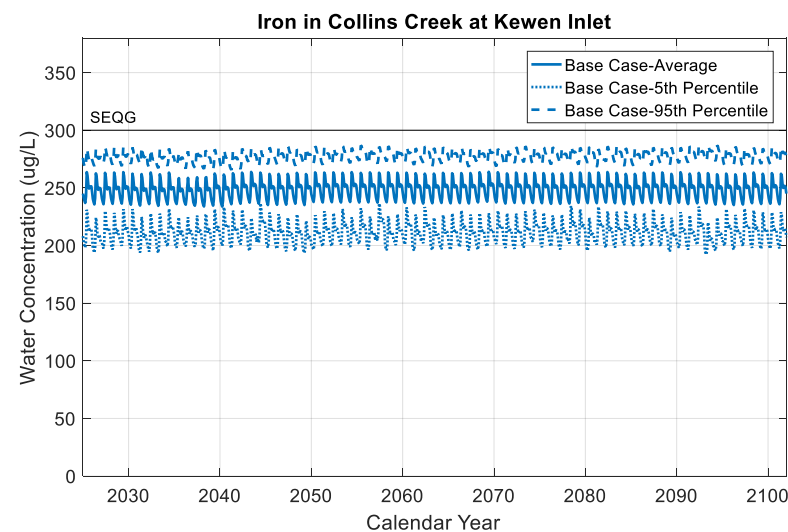
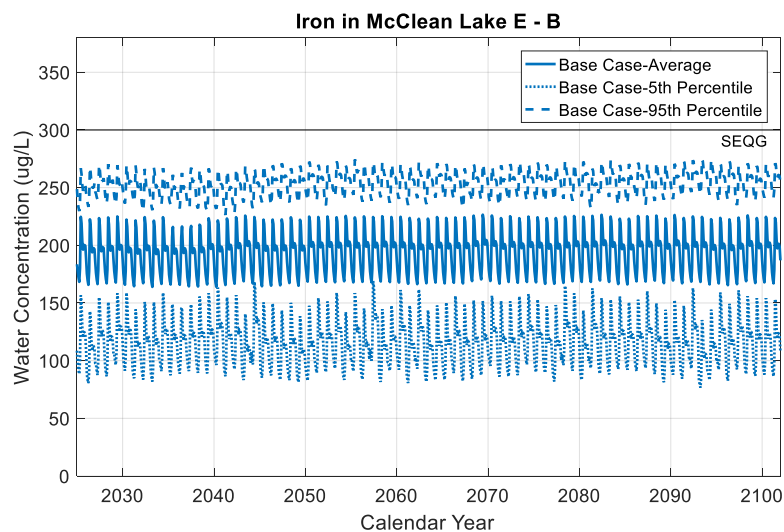
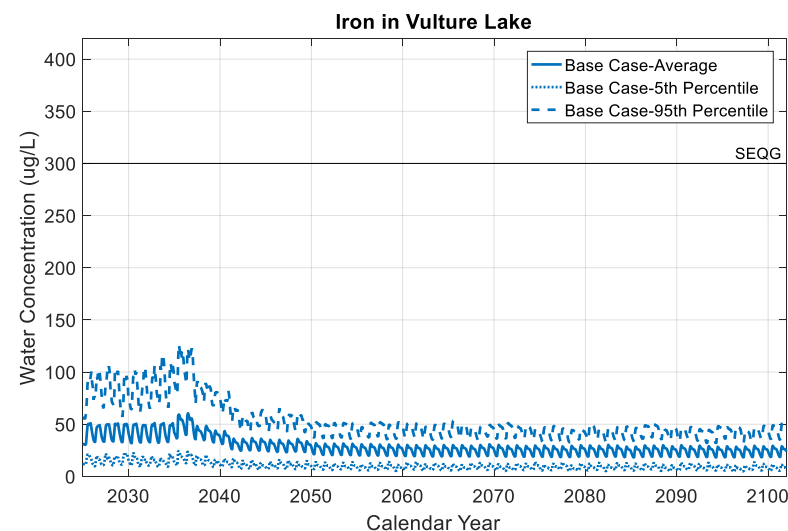
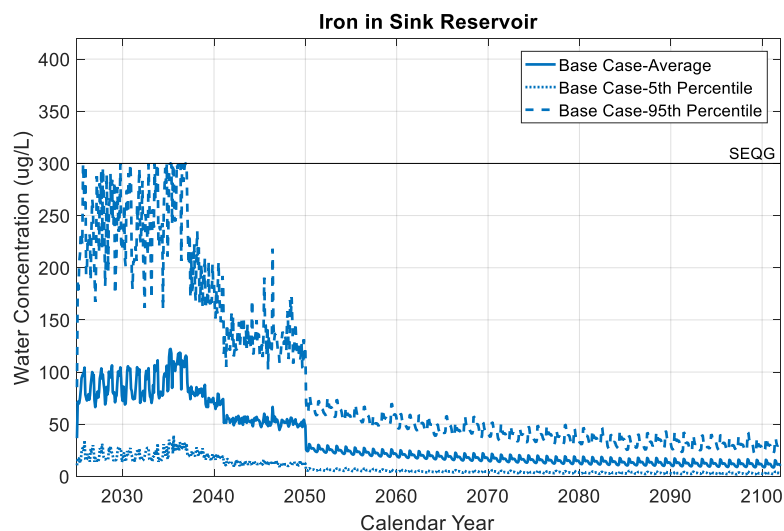


Figure 3.5-17 Water Quality Predictions – Base Case - Lead

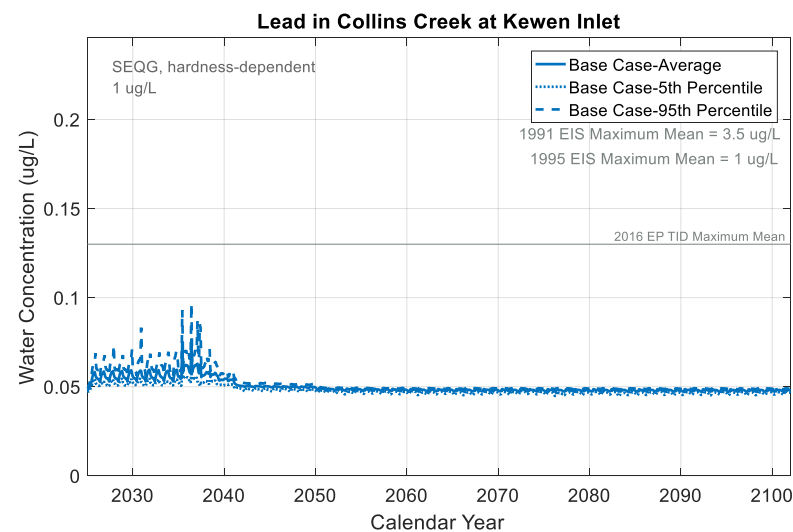
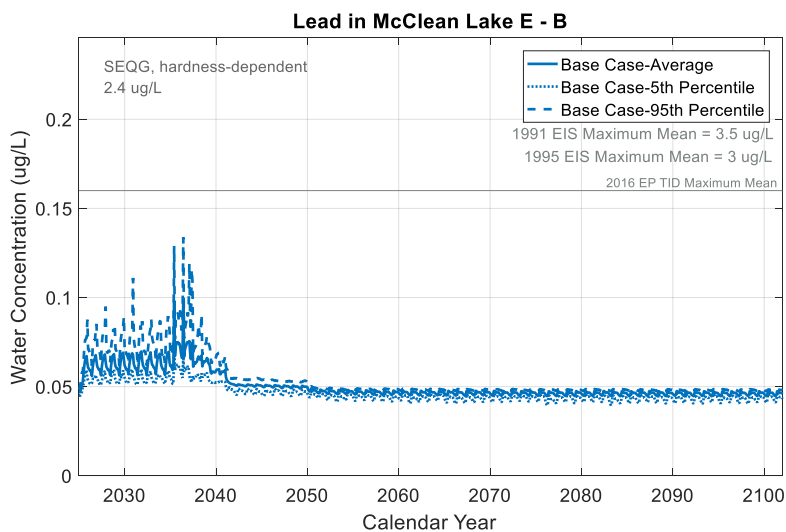
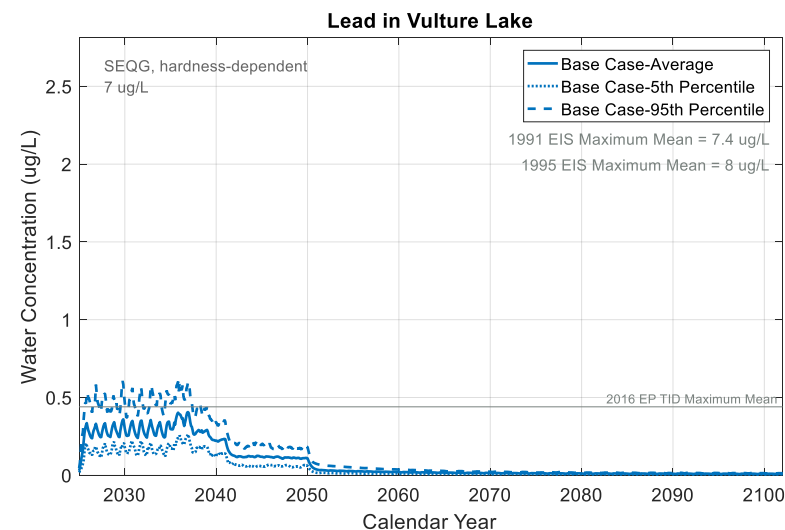
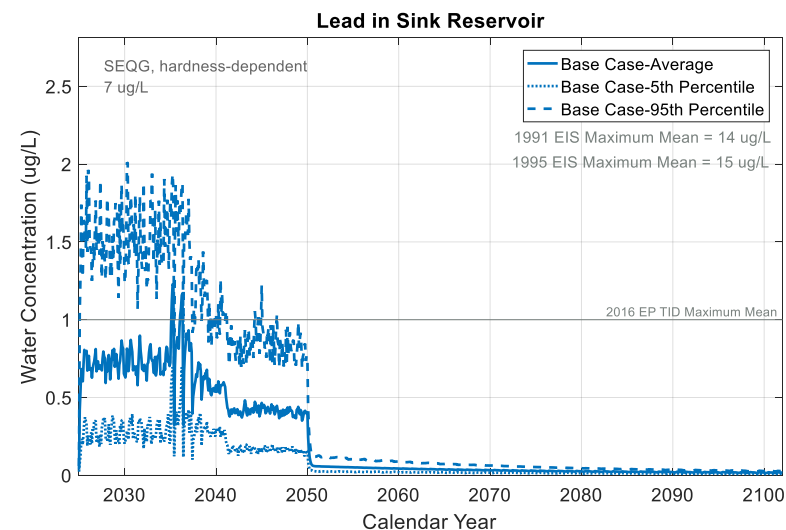


Figure 3.5-18 Water Quality Predictions – Base Case – Molybdenum

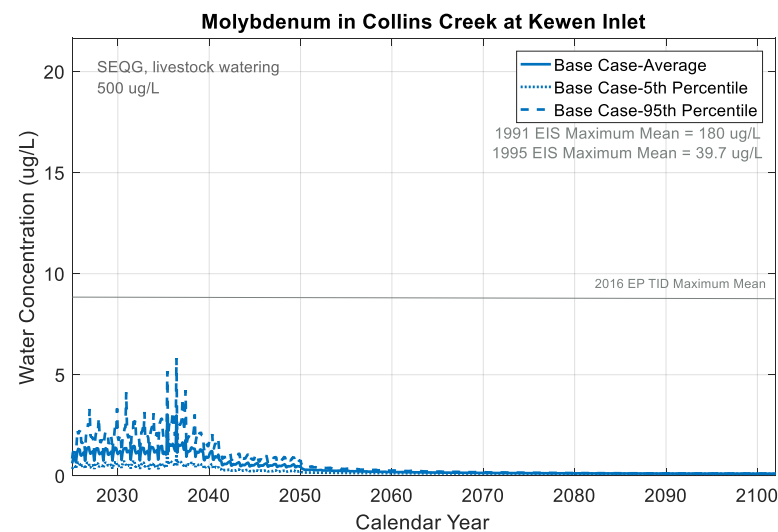
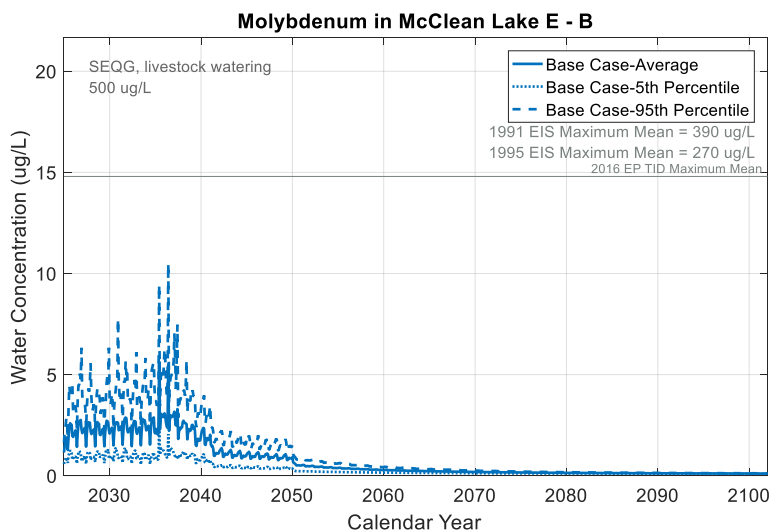
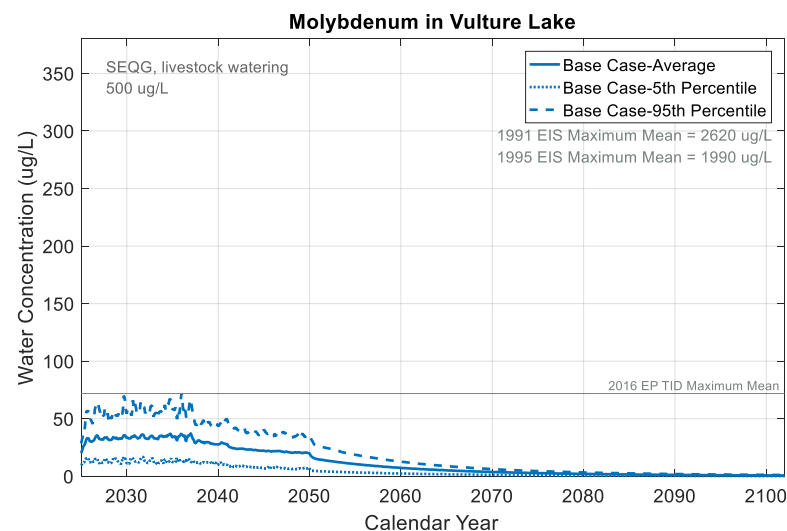
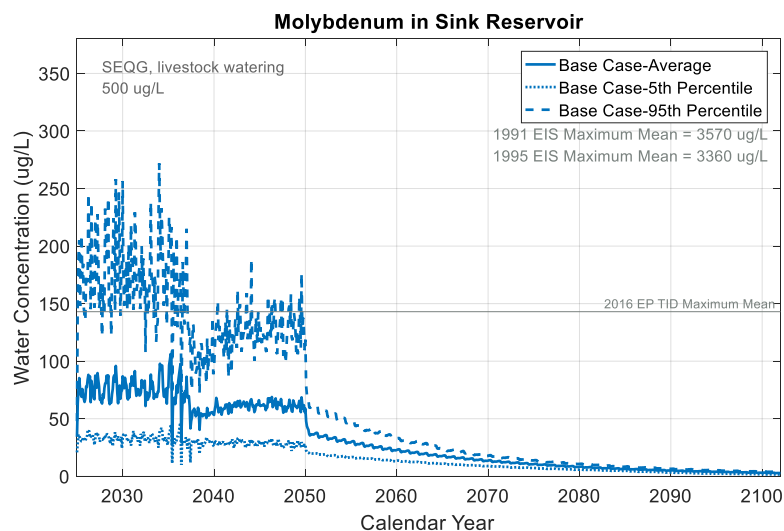


Figure 3.5-19 Water Quality Predictions – Base Case - Nickel

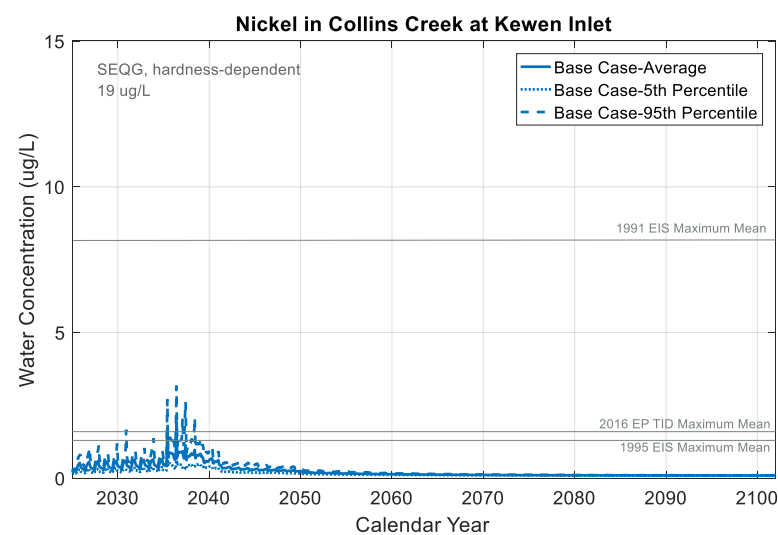
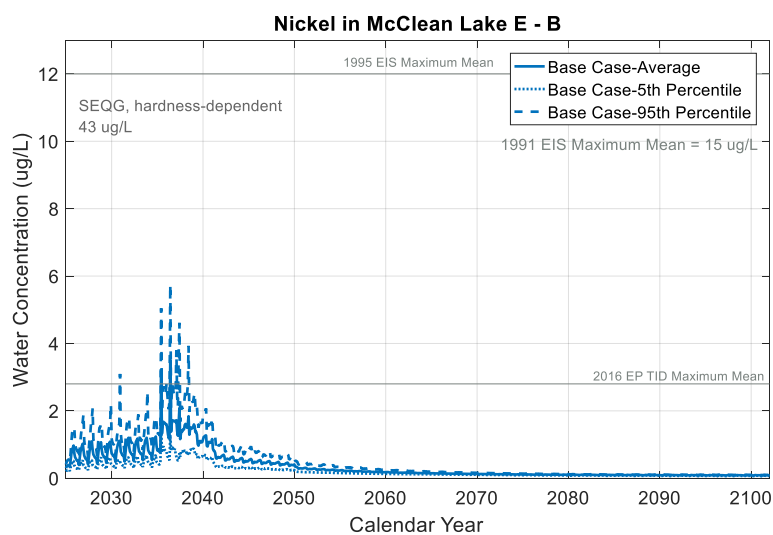
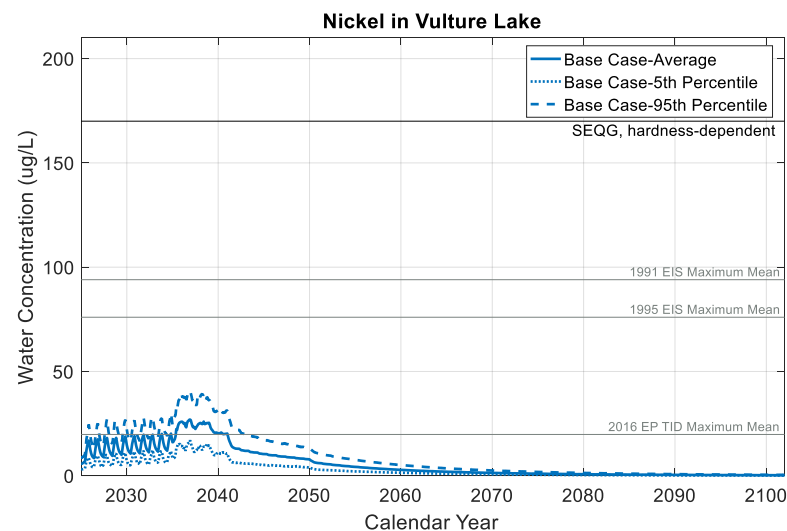
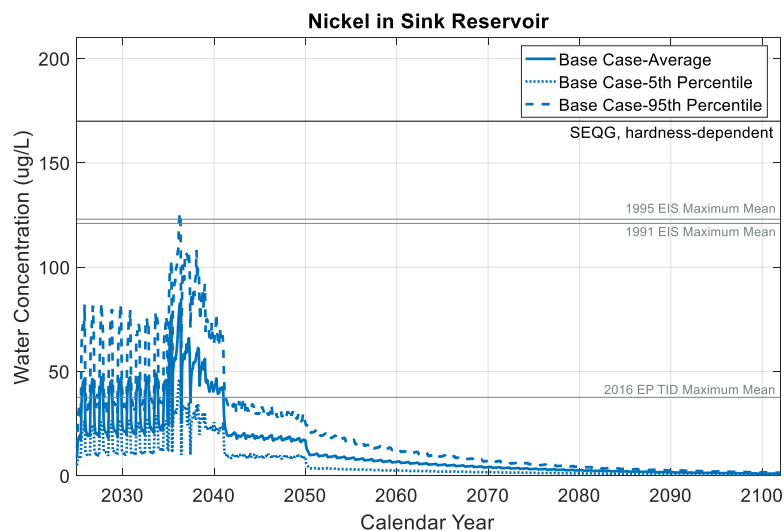


Figure 3.5-20 Water Quality Predictions – Base Case - Selenium

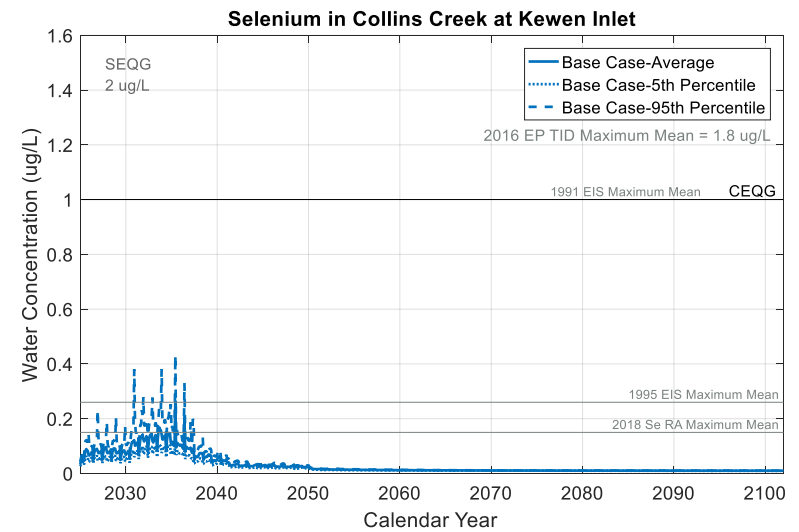
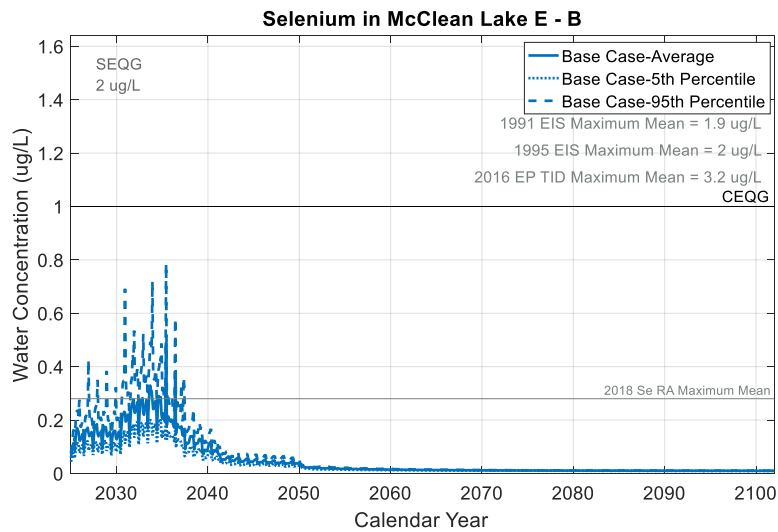
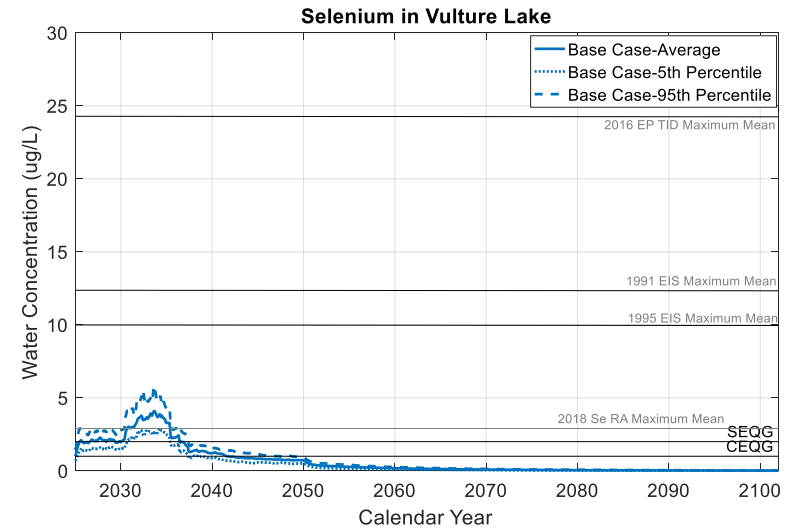
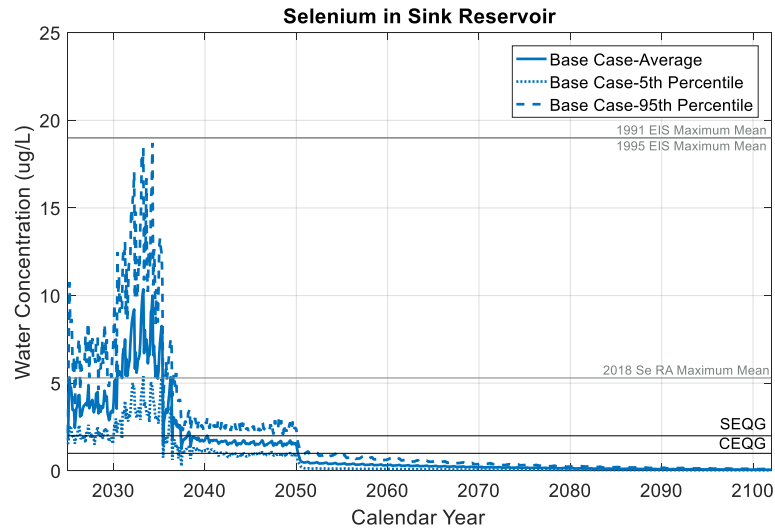


Figure 3.5-21 Water Quality Predictions – Base Case - Silver

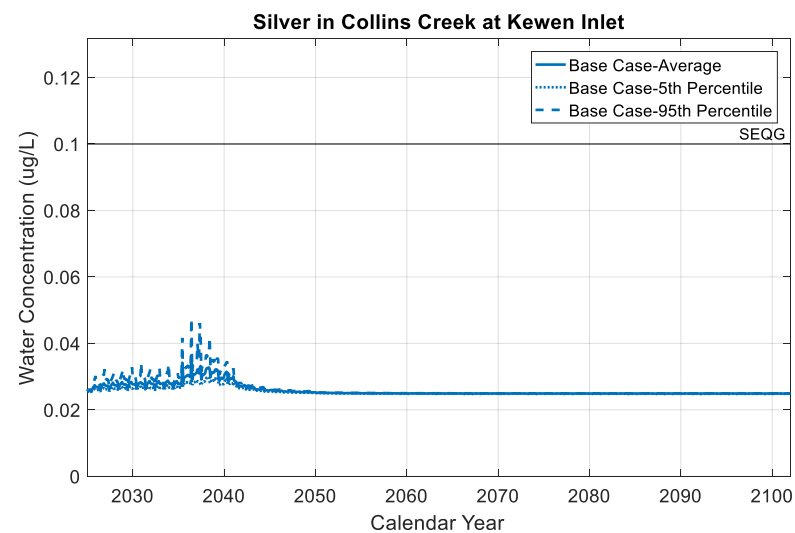
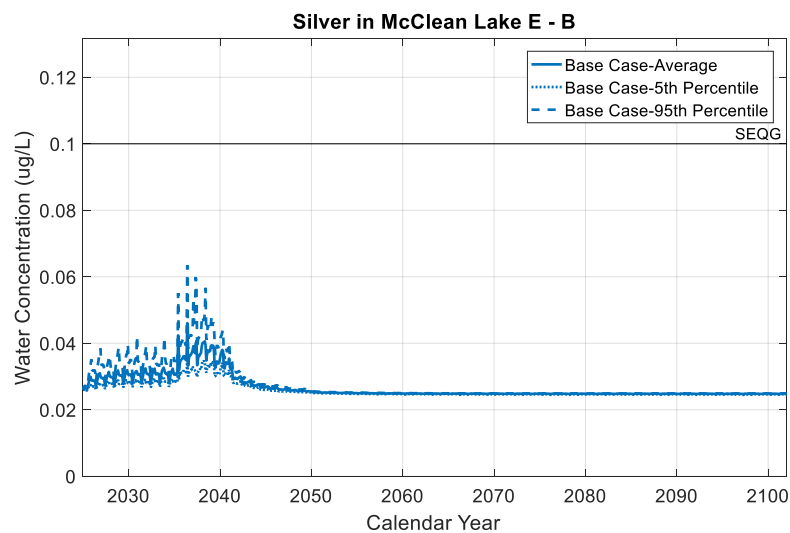
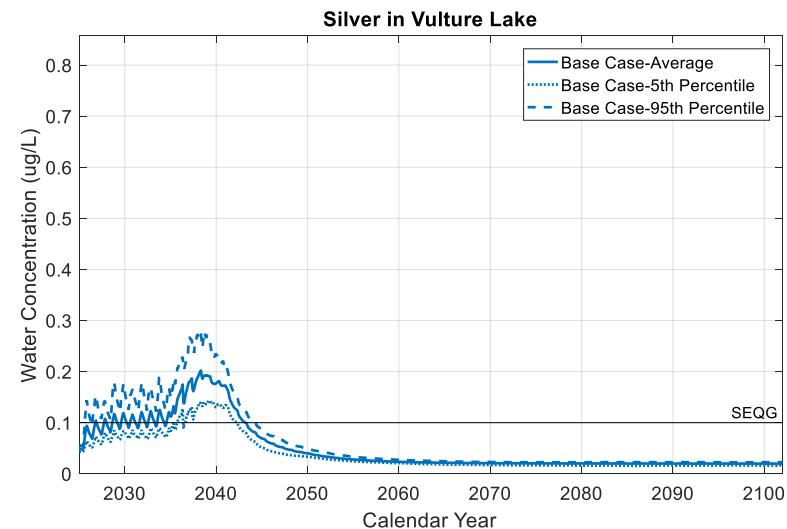
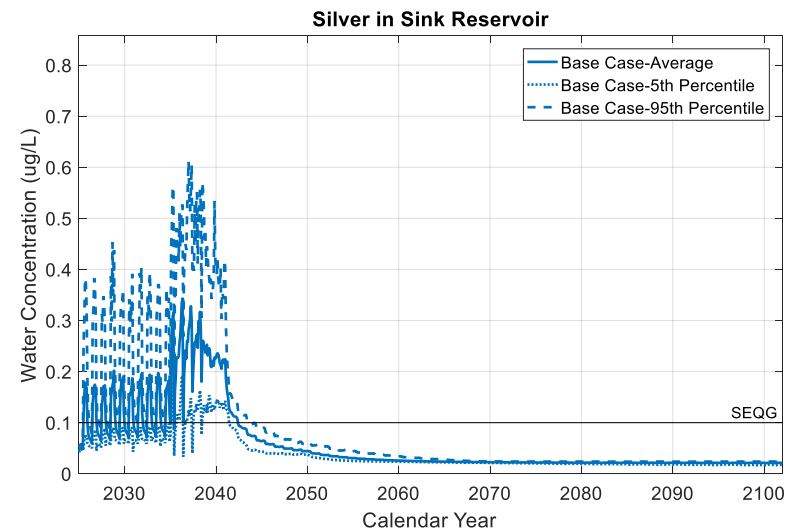


Figure 3.5-22 Water Quality Predictions – Base Case – Thallium

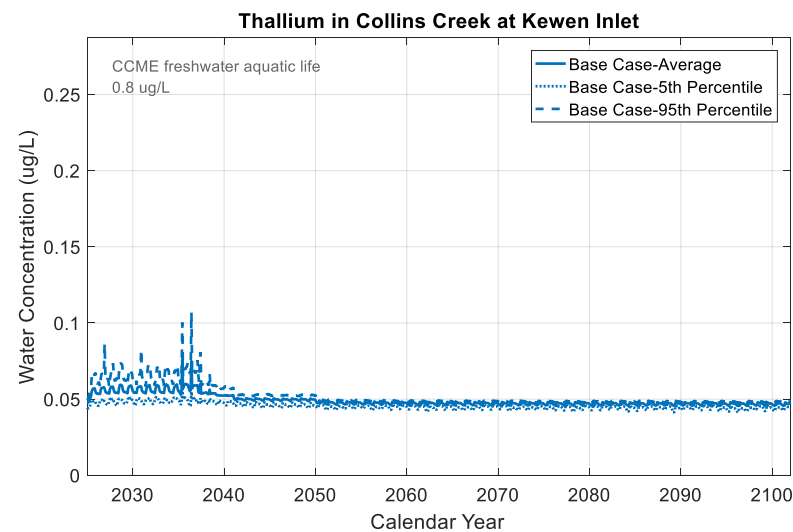
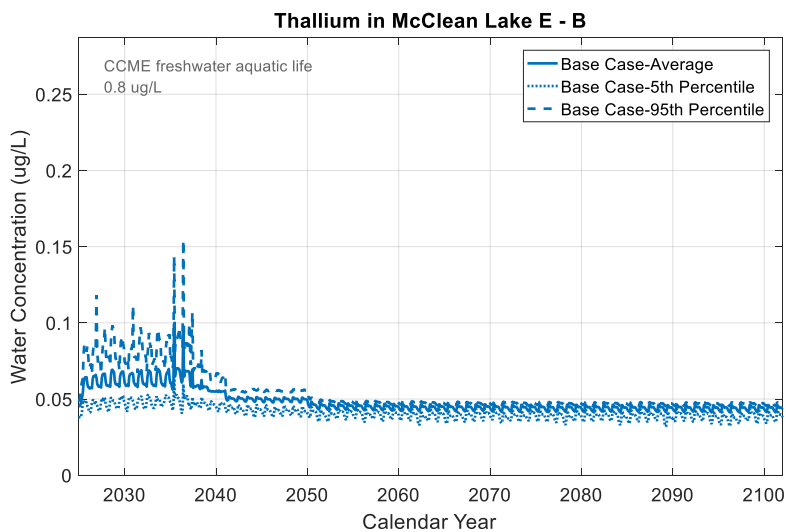
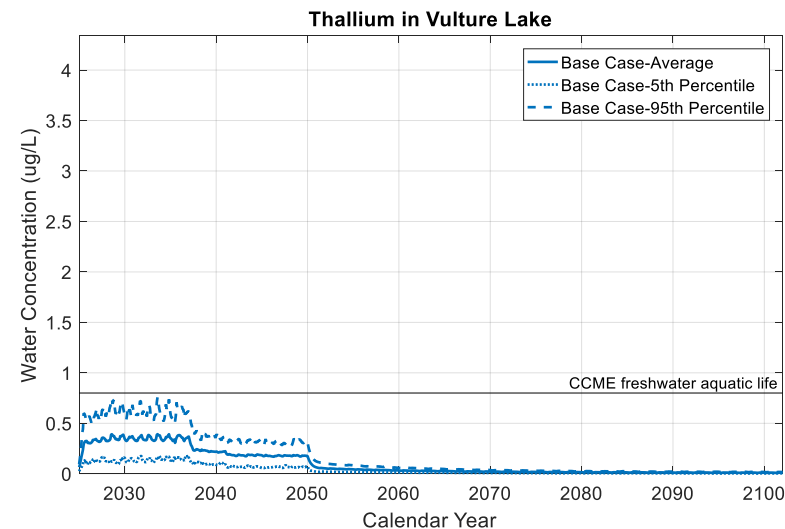
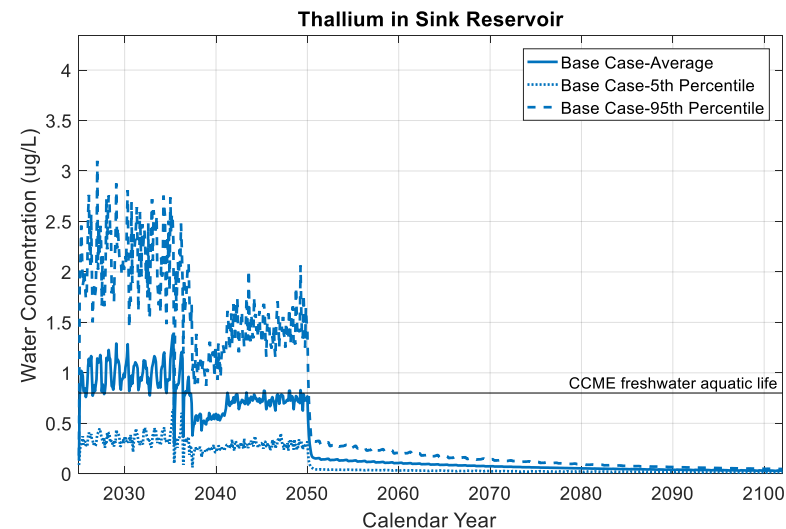


Figure 3.5-23 Water Quality Predictions – Base Case – Uranium

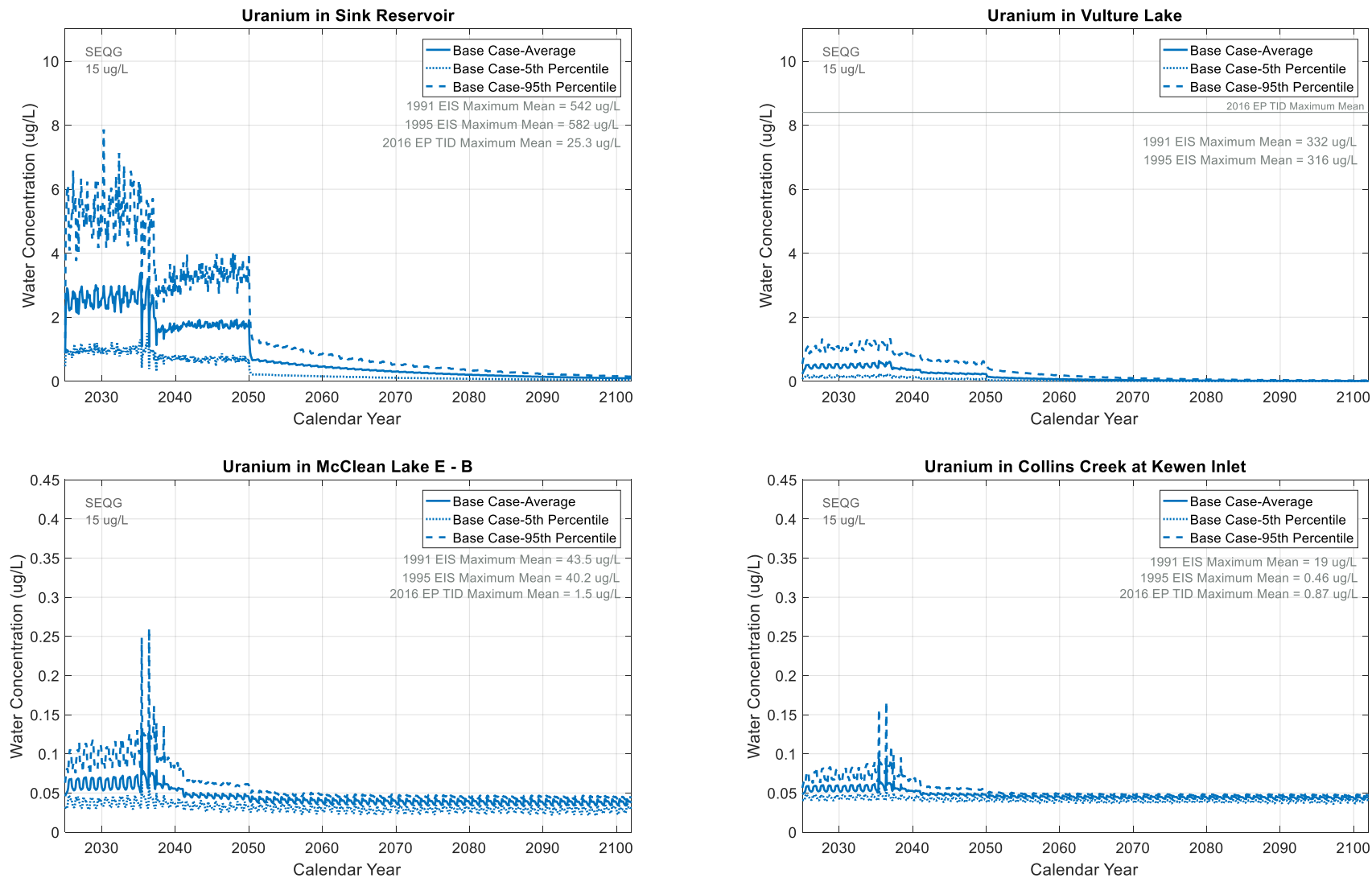


Figure 3.5-24 Water Quality Predictions – Base Case - Zinc

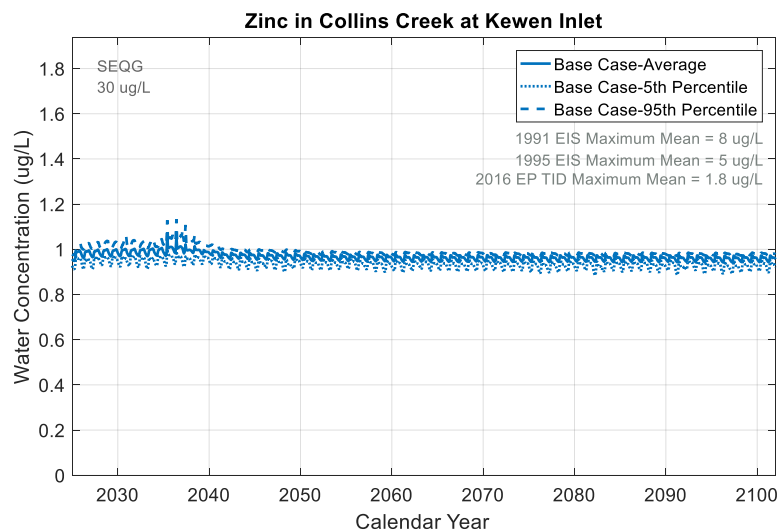
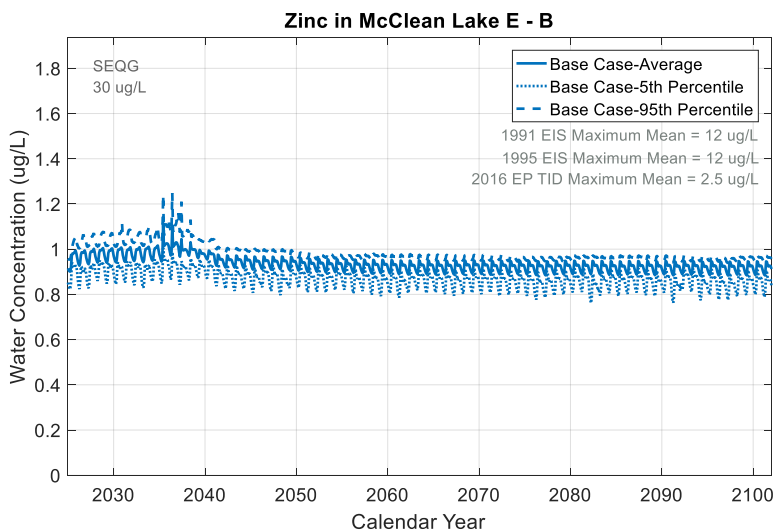
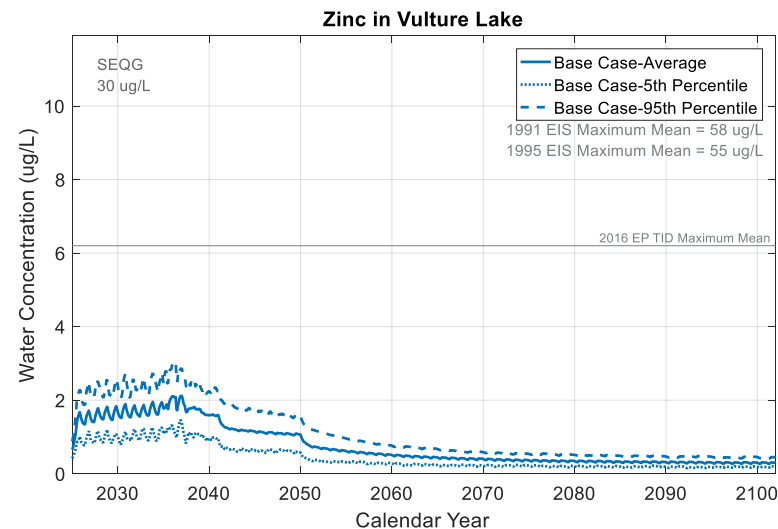
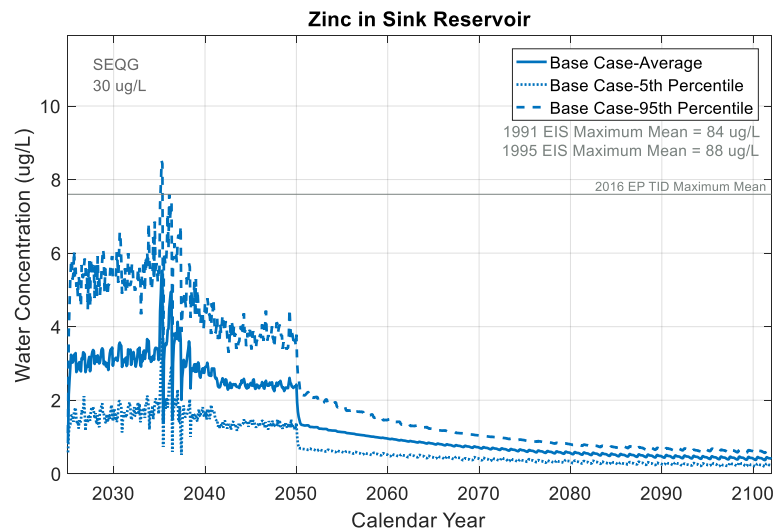


Figure 3.5-25 Water Quality Predictions – Base Case – Lead-210

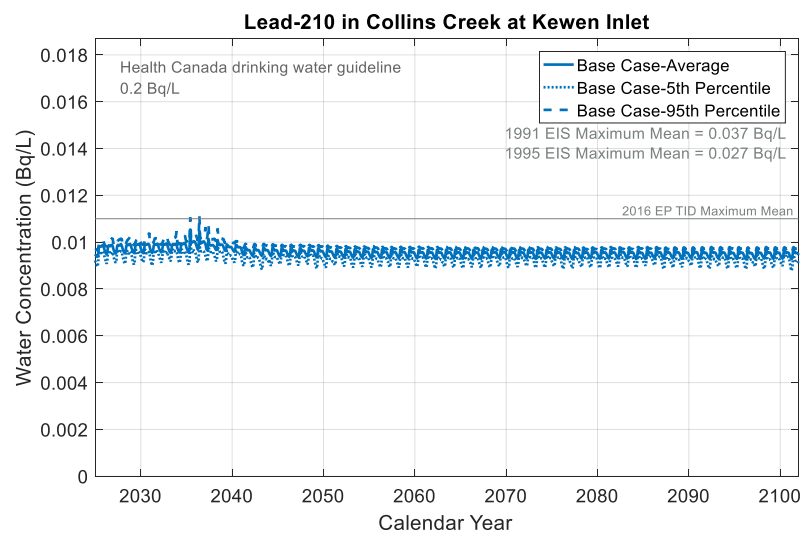
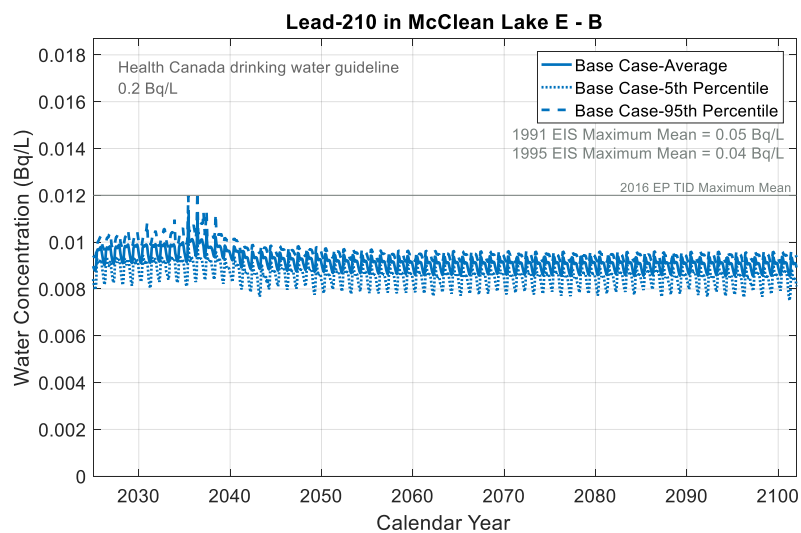
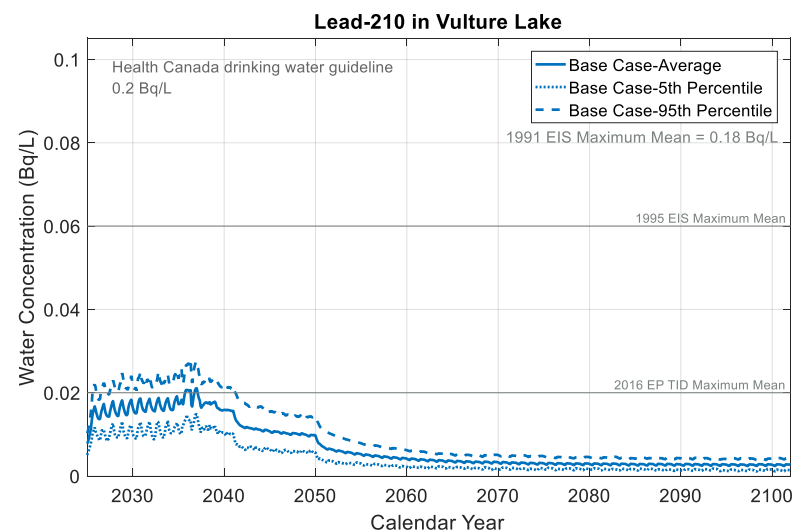
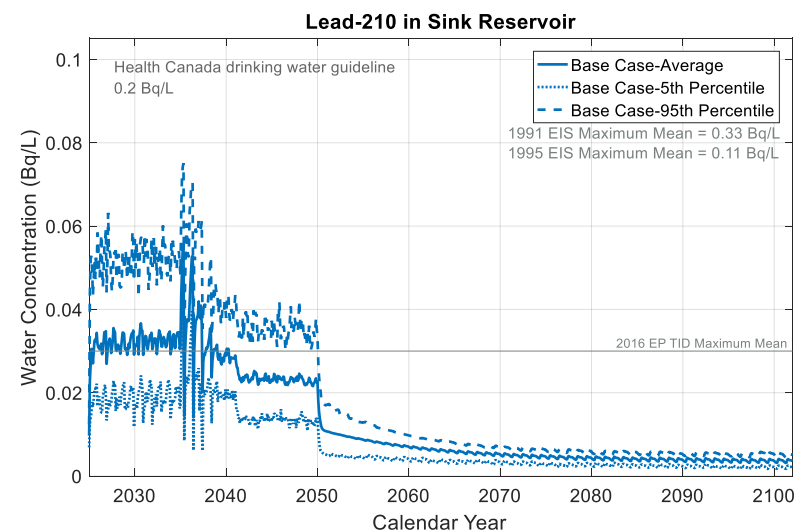


Figure 3.5-26 Water Quality Predictions – Base Case – Polonium-210

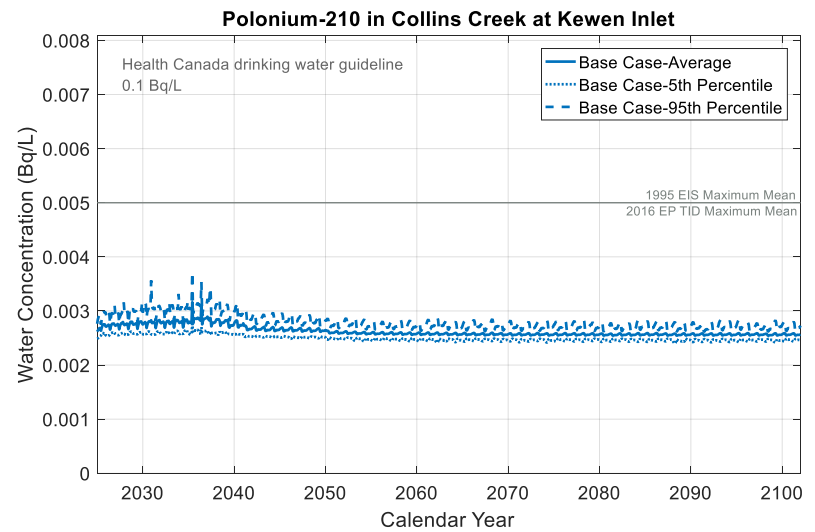
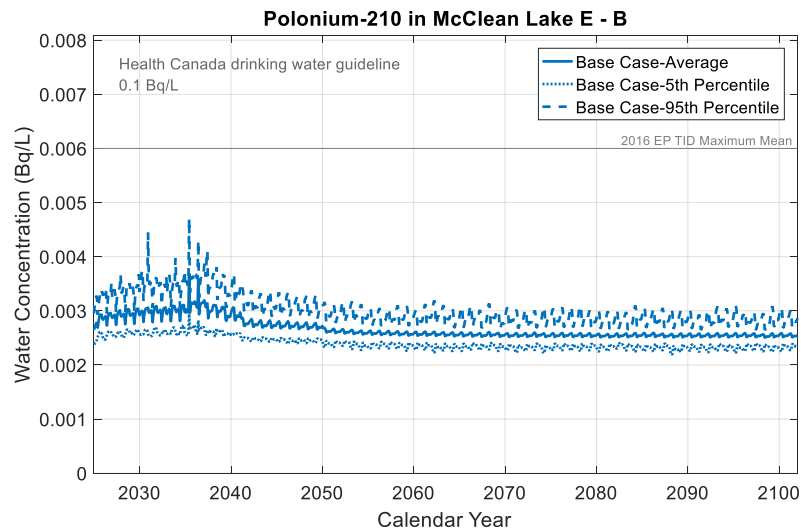
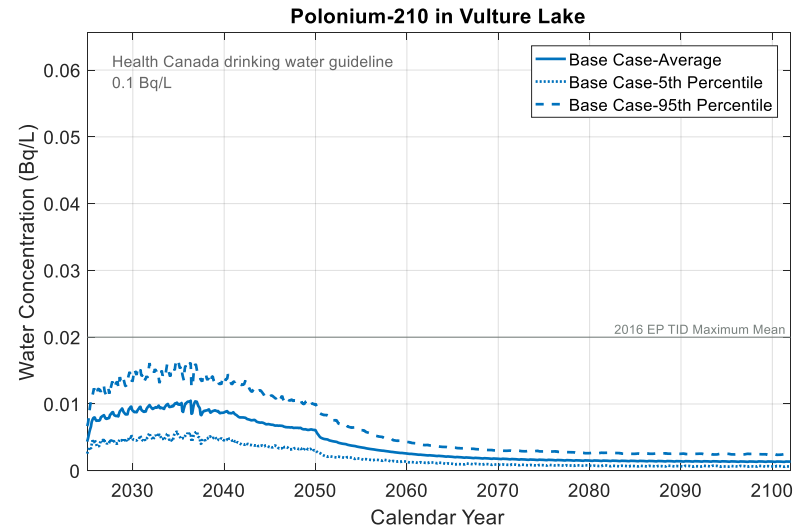
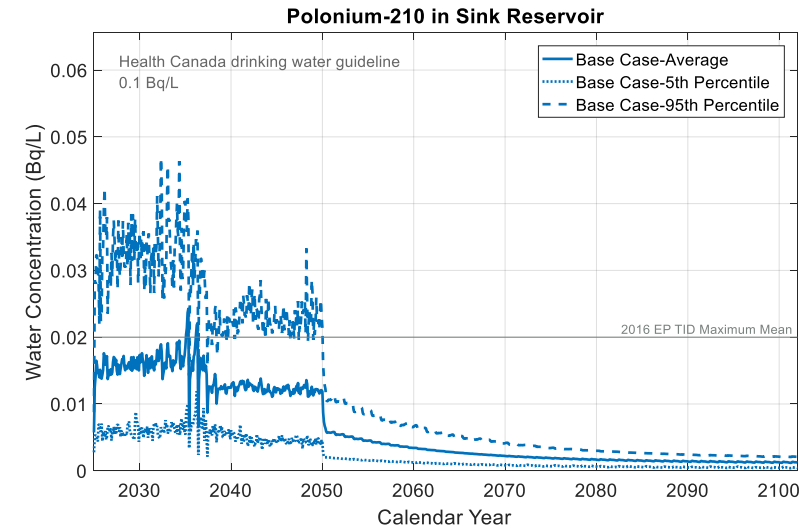


Figure 3.5-27 Water Quality Predictions – Base Case – Radium-226

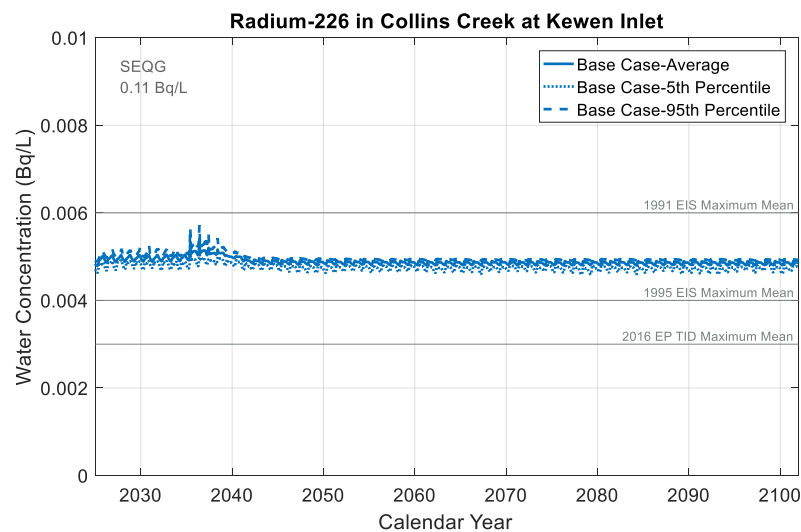
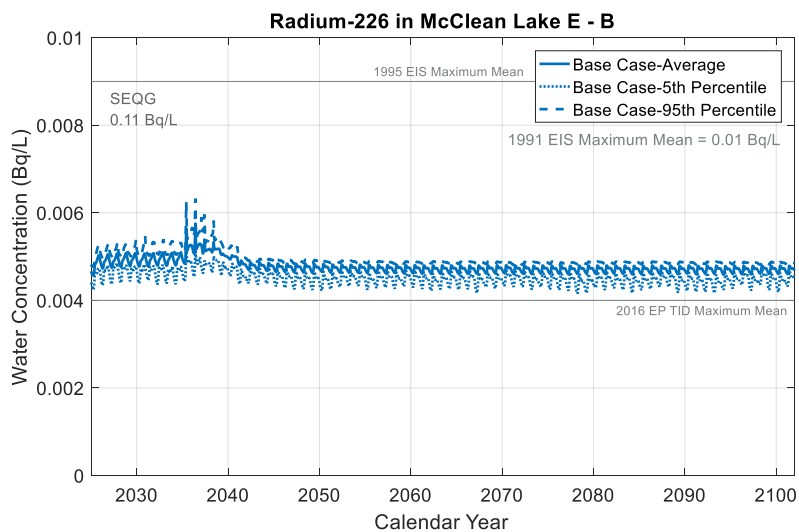
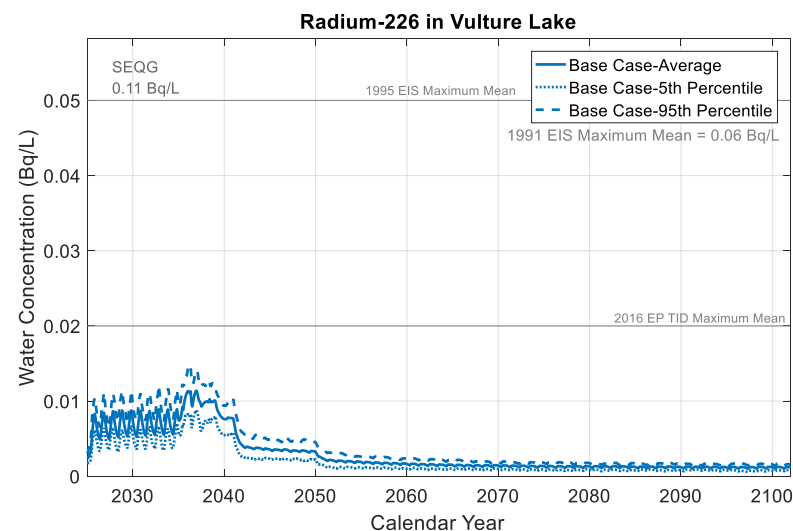
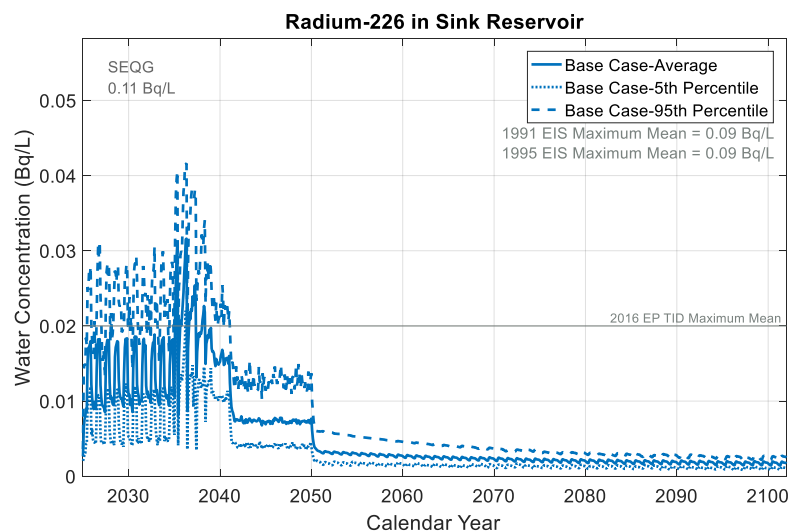


Figure 3.5-28 Water Quality Predictions – Base Case – Thorium-230

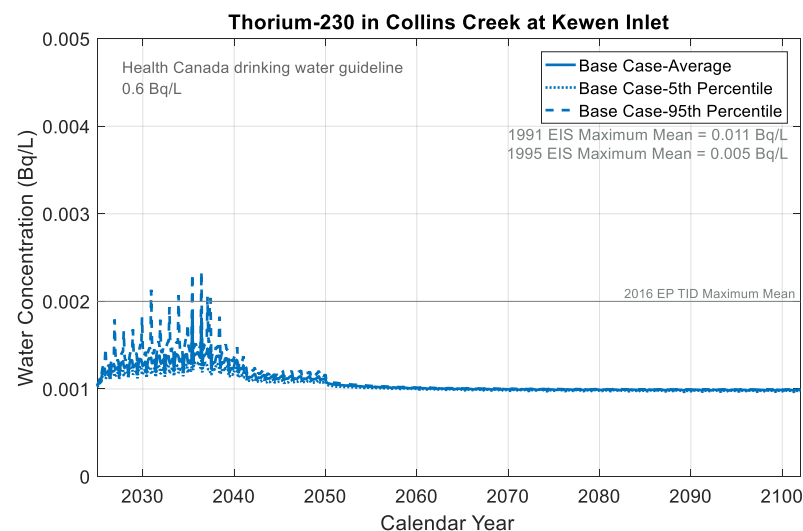
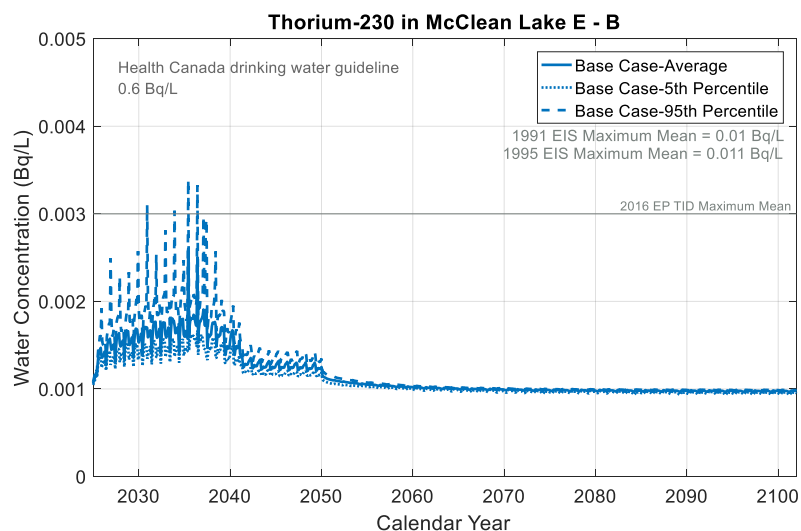
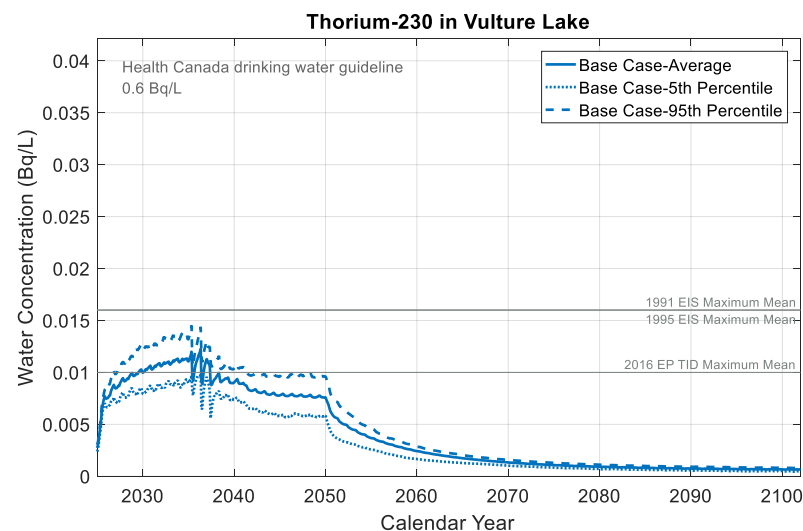
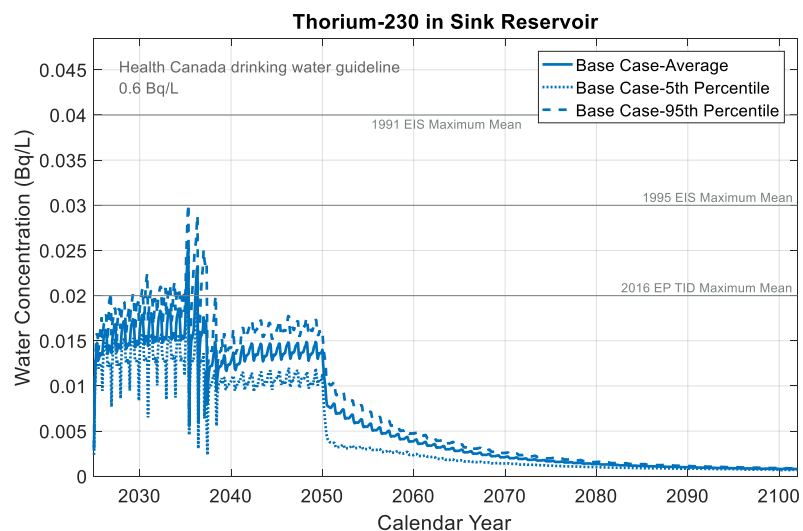


Figure 3.5-29 Sediment Quality Predictions – Base Case - Arsenic

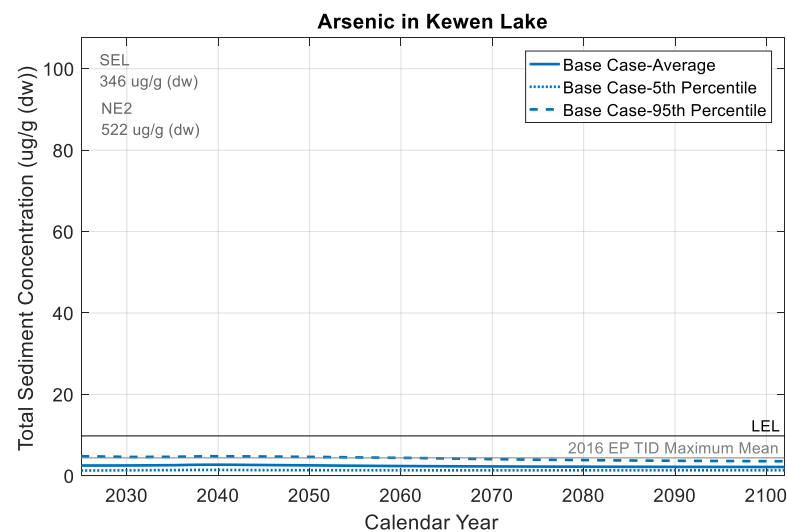
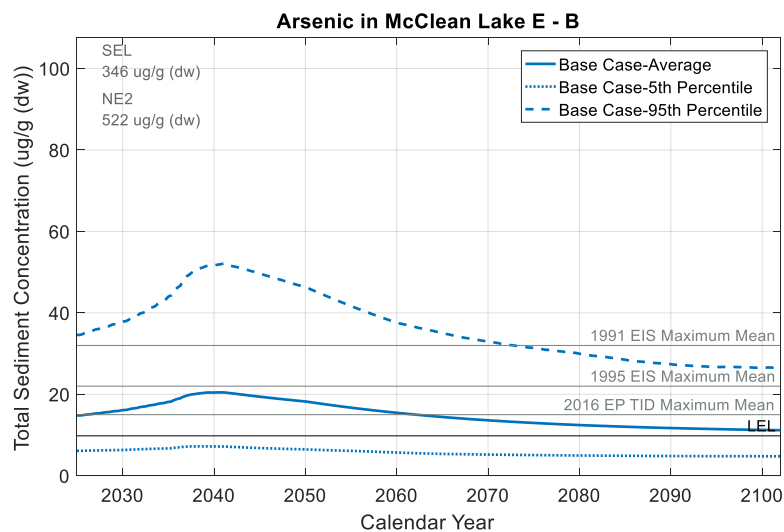
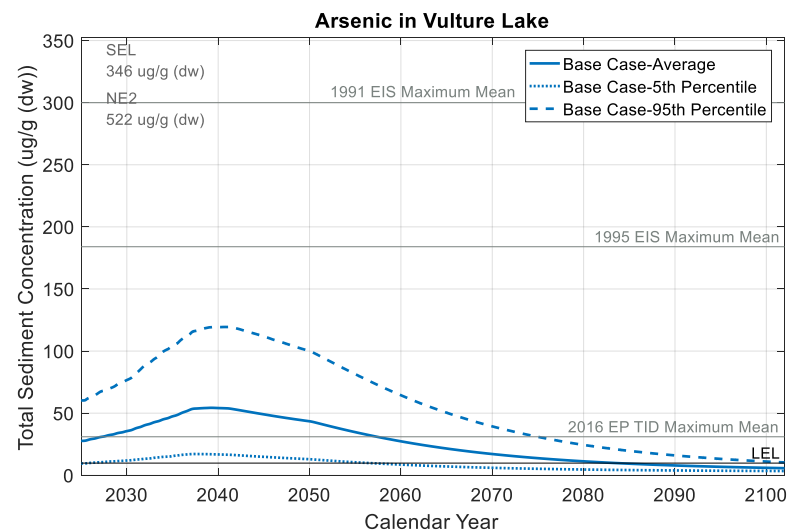
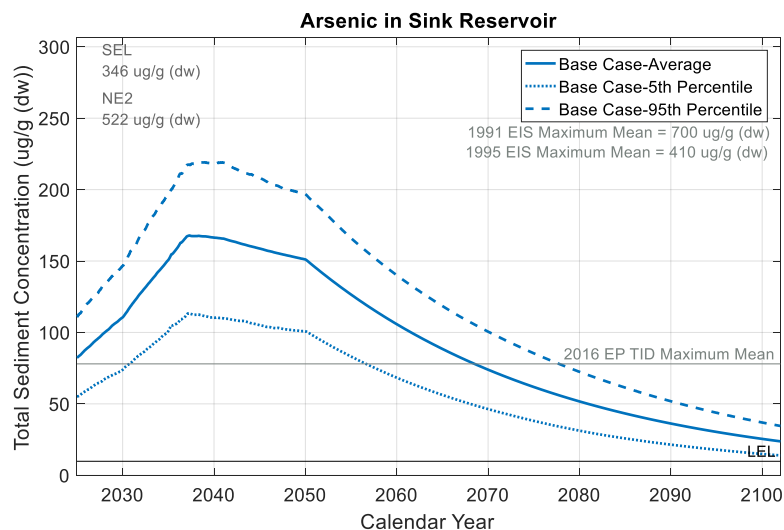


Figure 3.5-30 Sediment Quality Predictions – Base Case - Cadmium

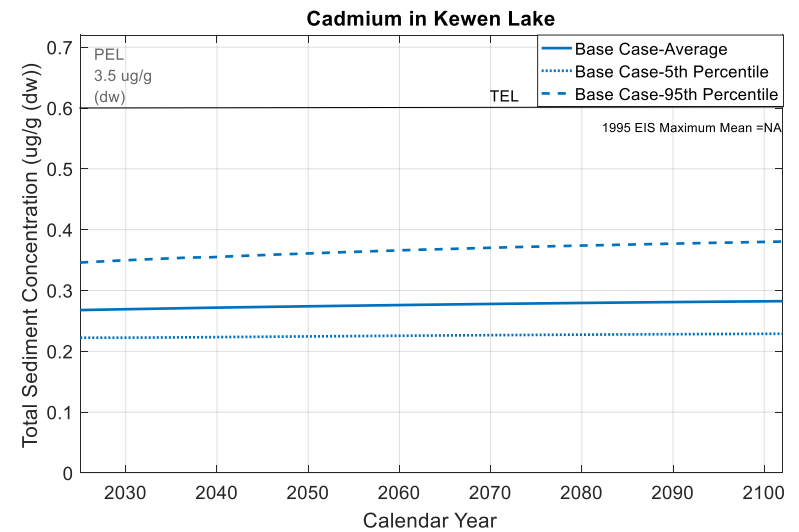
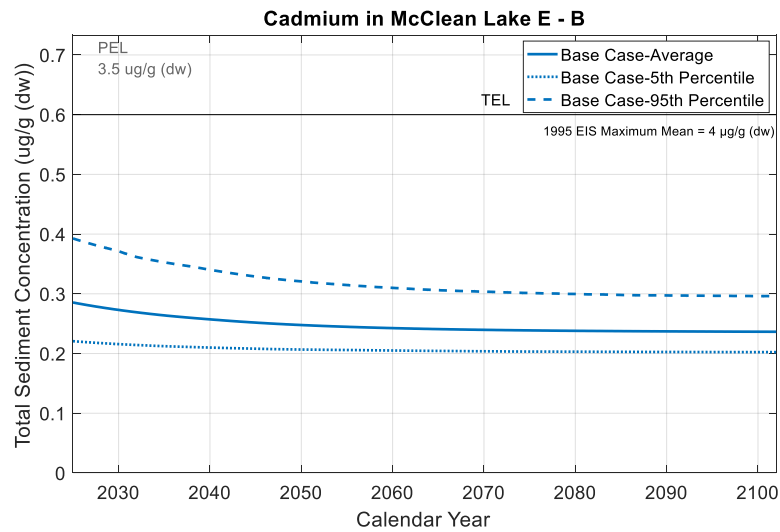
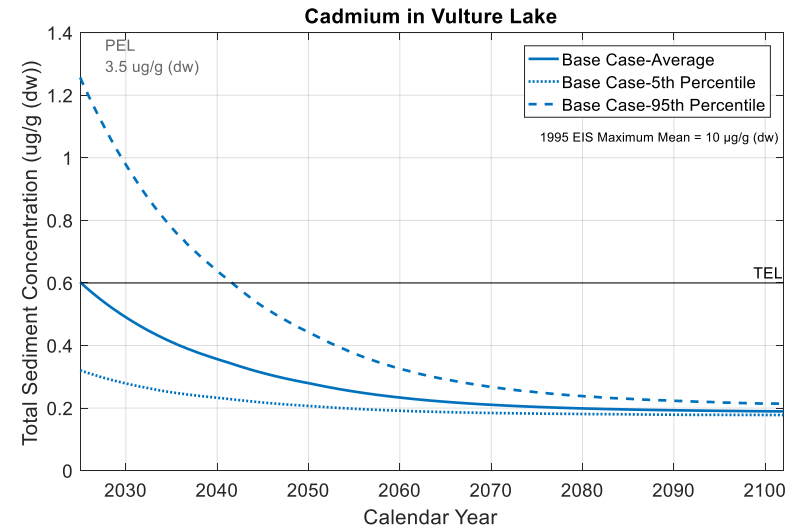
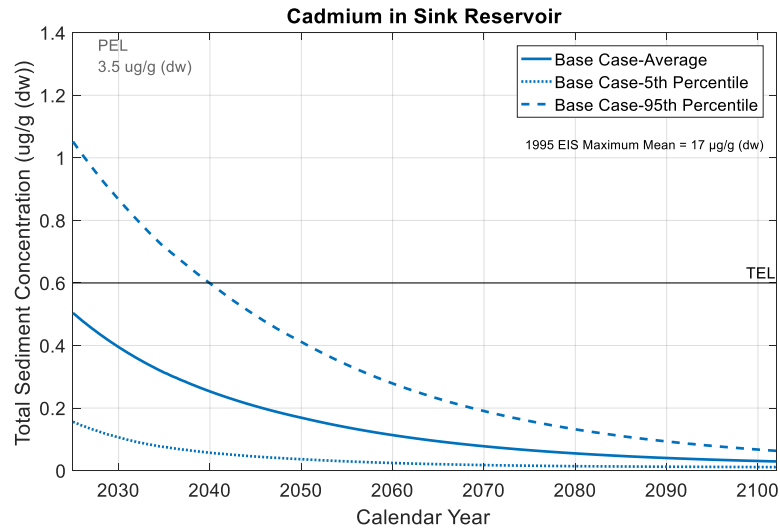


Figure 3.5-31 Sediment Quality Predictions – Base Case - Chromium

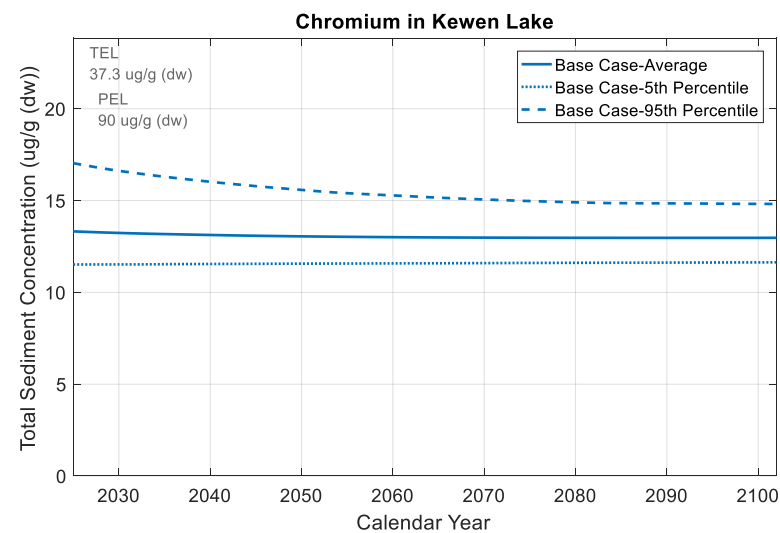
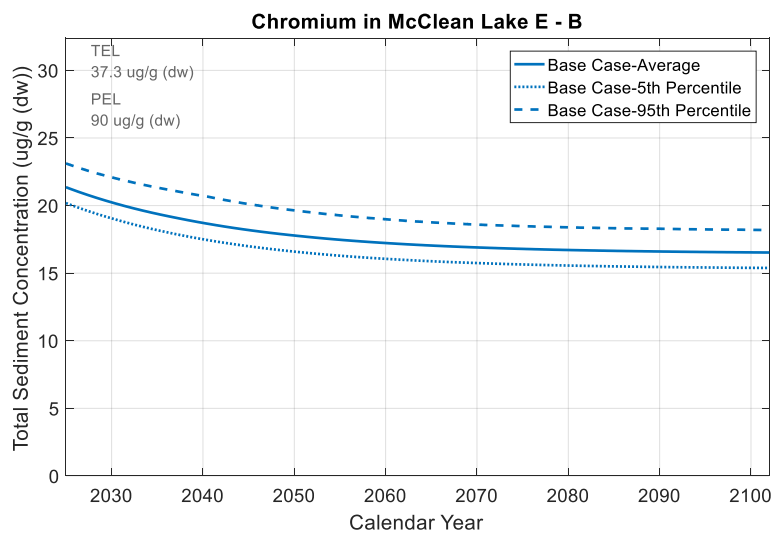
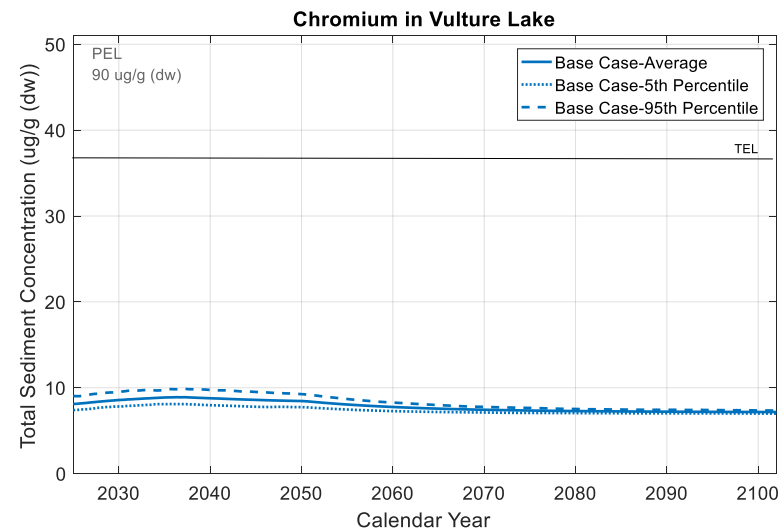
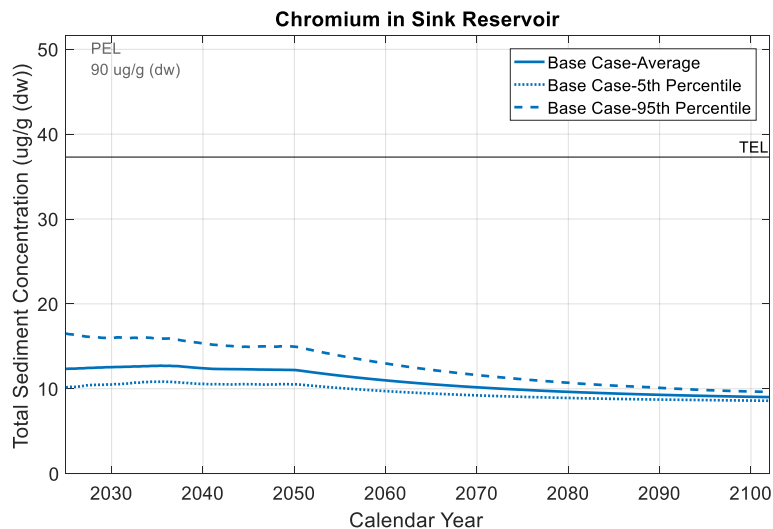


Figure 3.5-32 Sediment Quality Predictions – Base Case - Cobalt

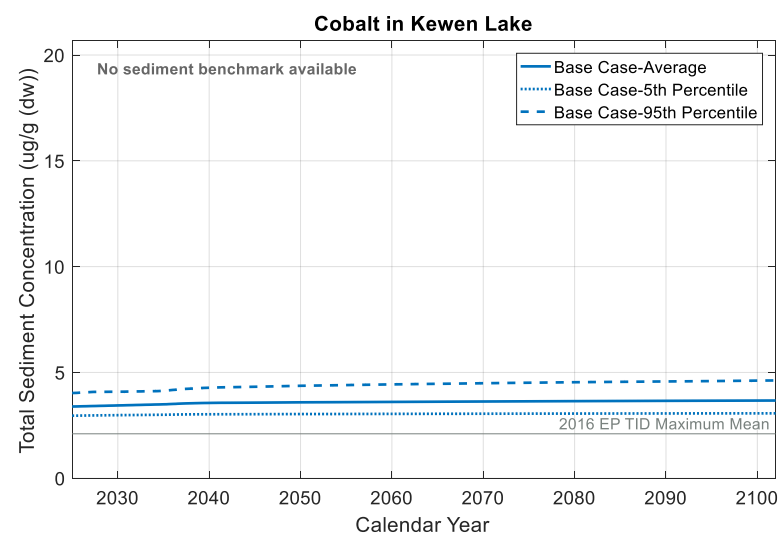
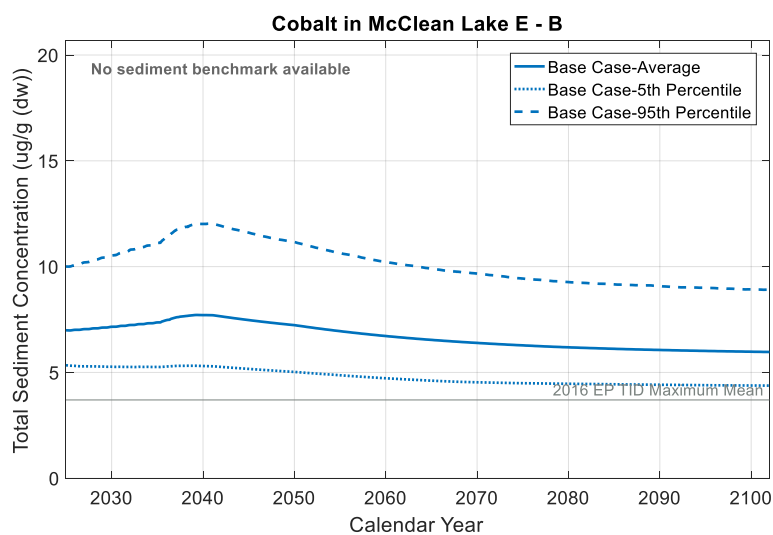
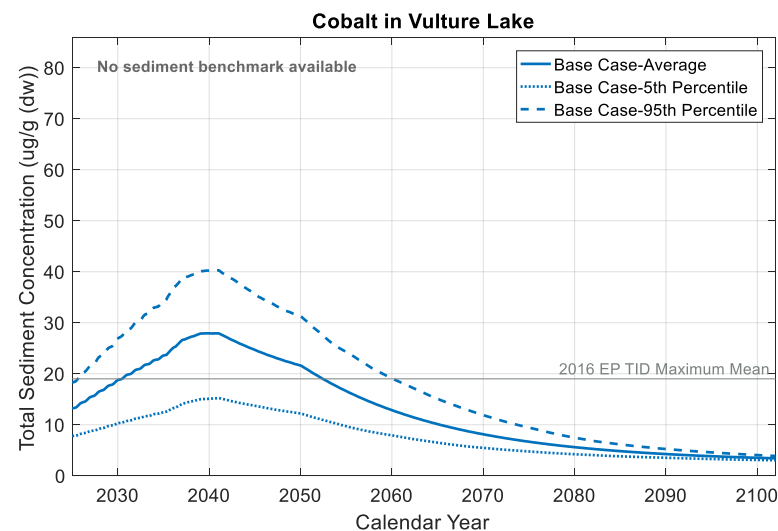
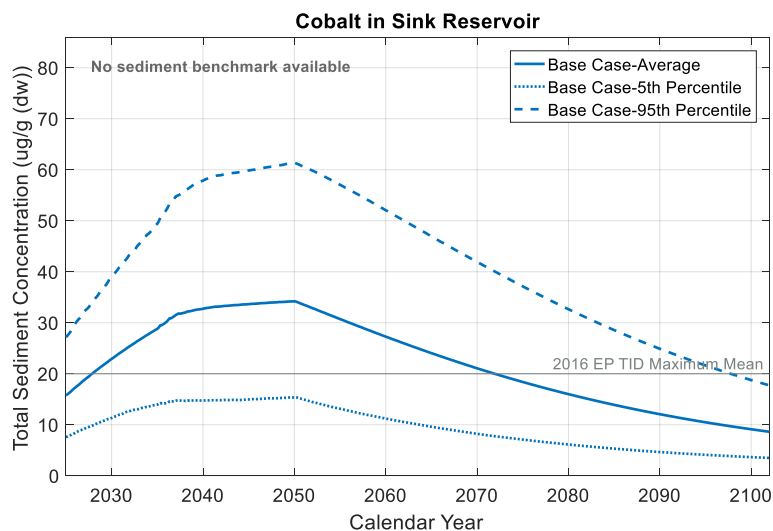


Figure 3.5-33 Sediment Quality Predictions – Base Case – Copper

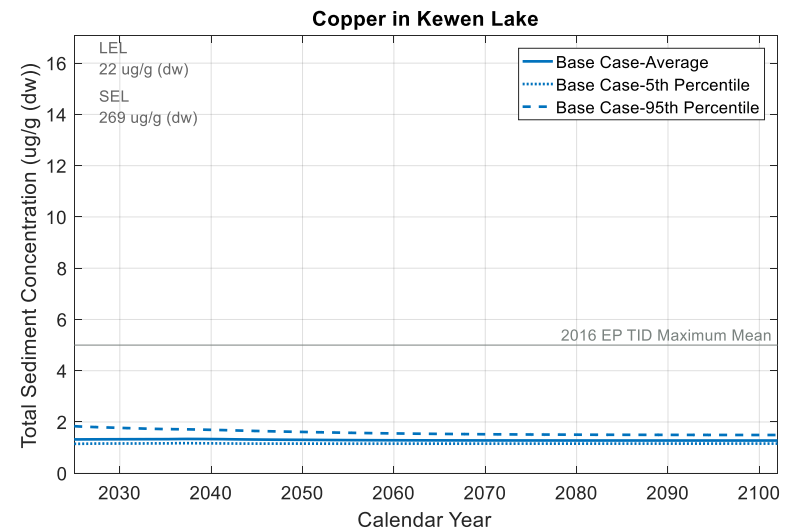
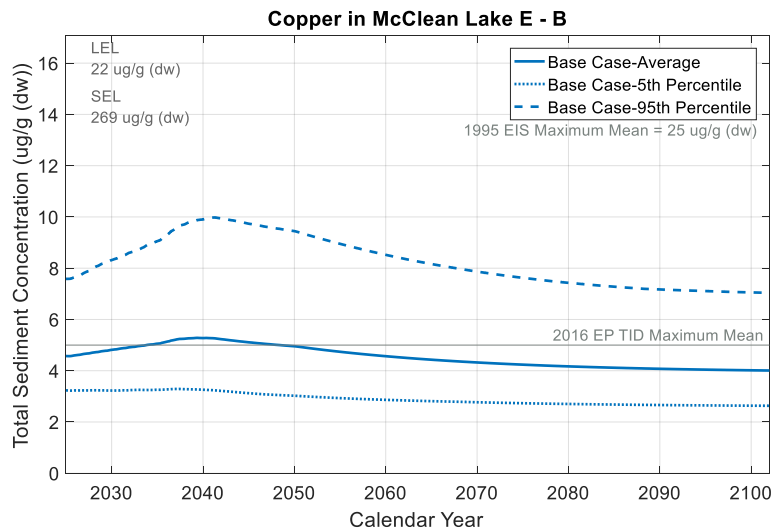
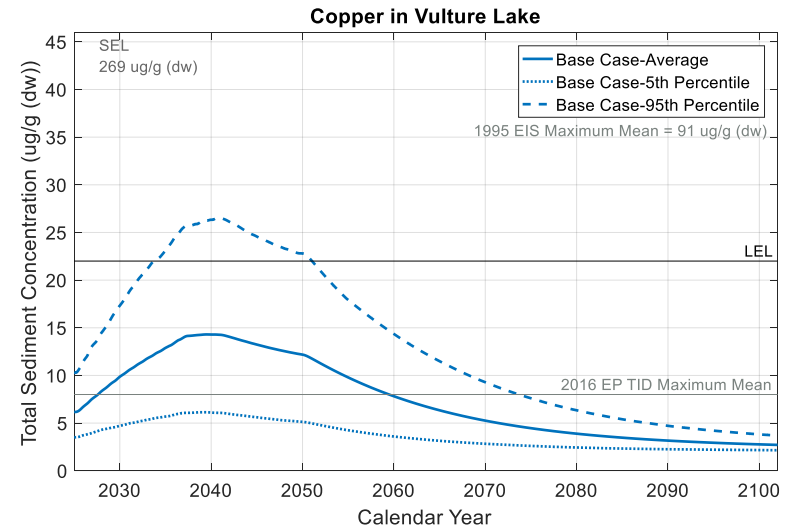
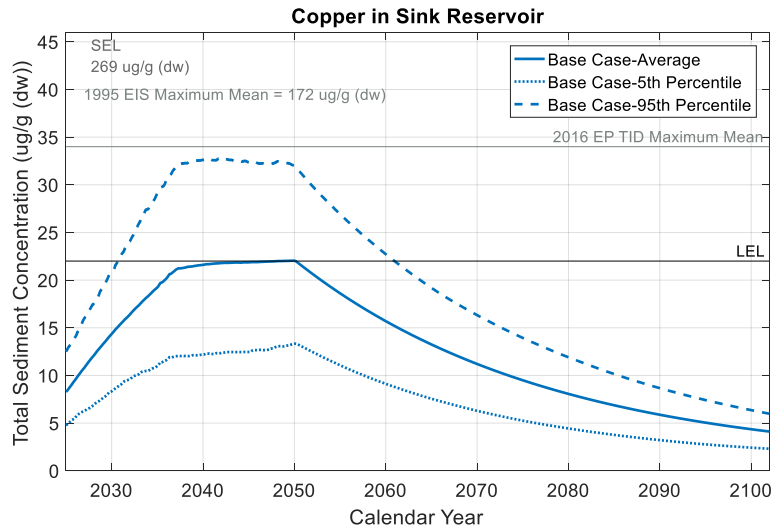


Figure 3.5-34 Sediment Quality Predictions – Base Case - Lead

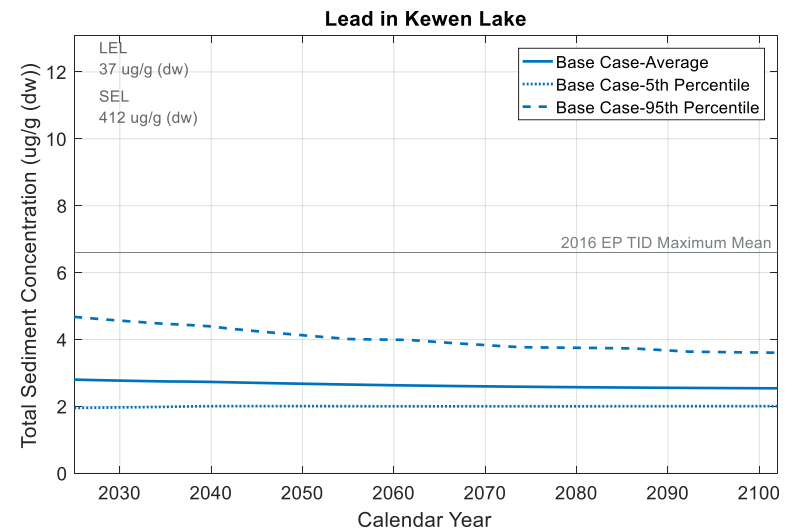
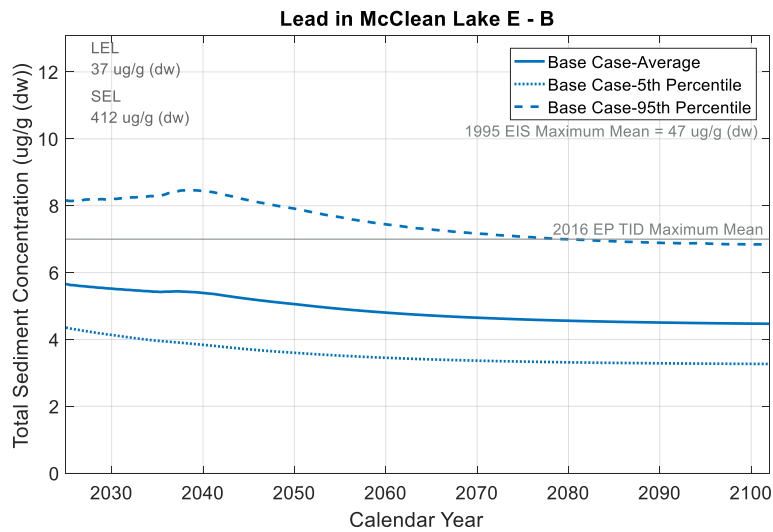
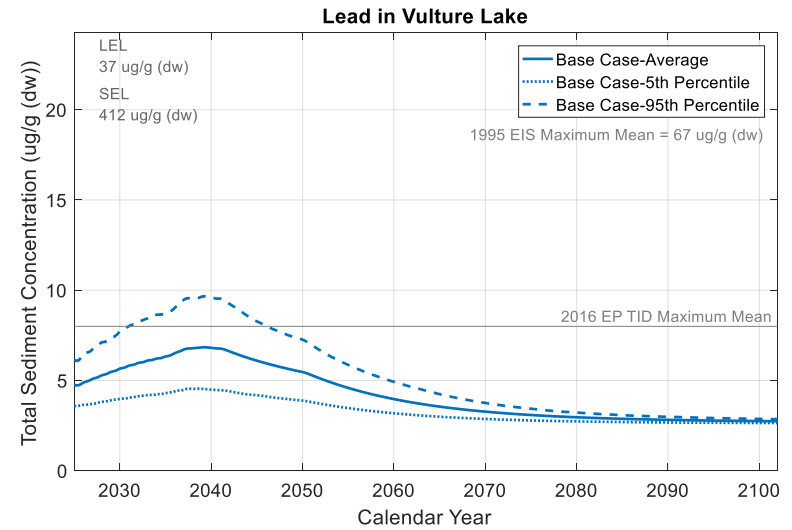
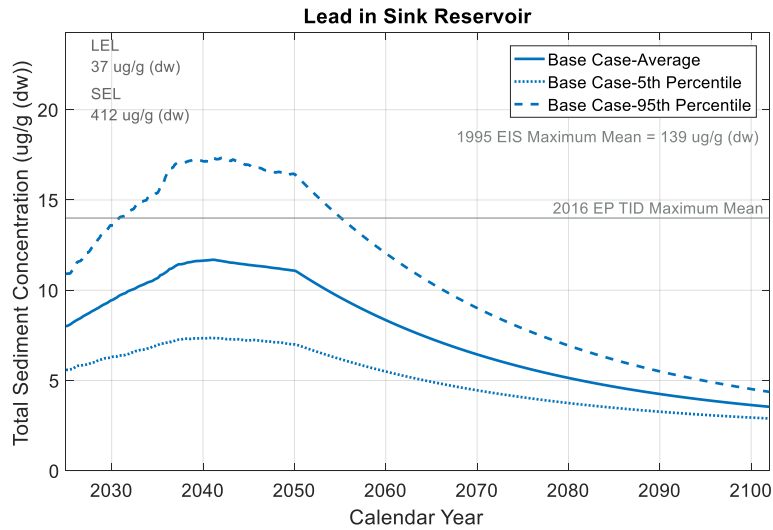


Figure 3.5-35 Sediment Quality Predictions – Base Case – Molybdenum

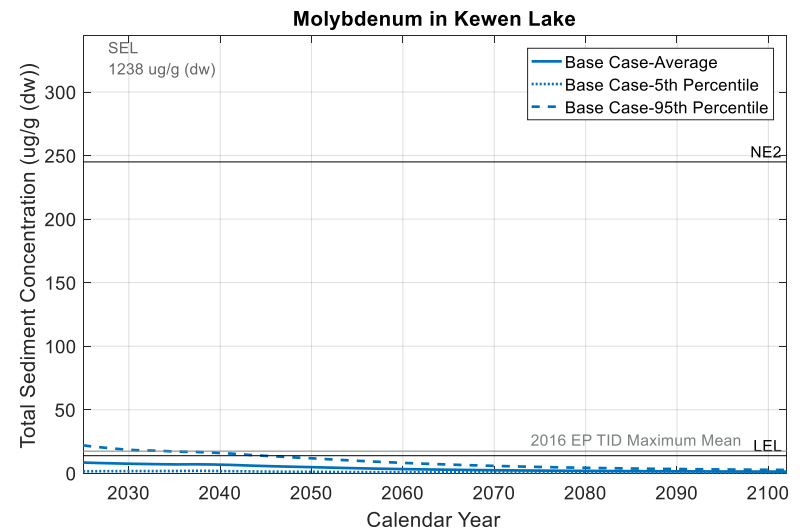
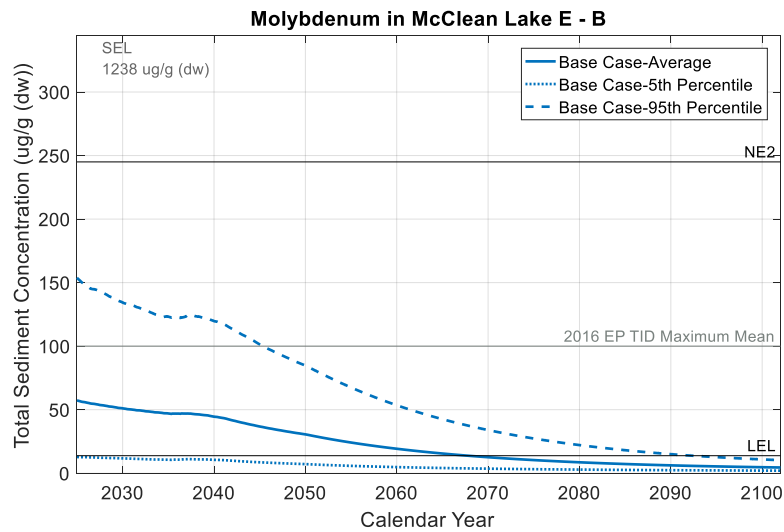
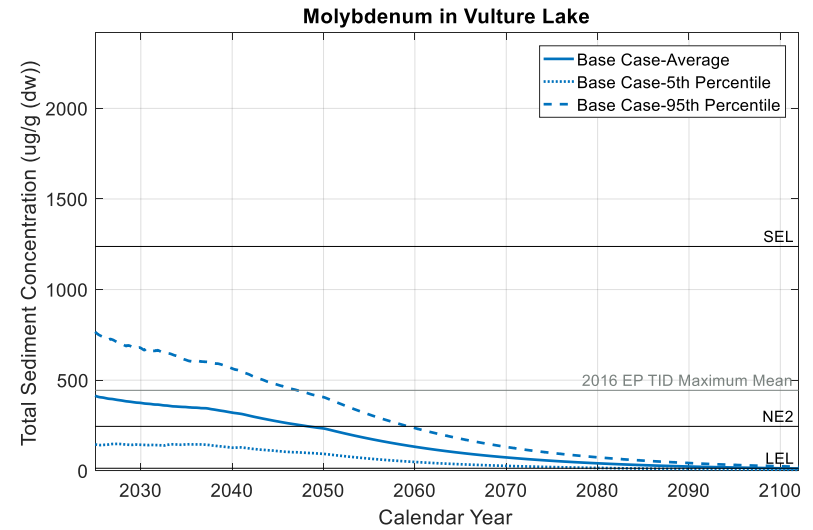
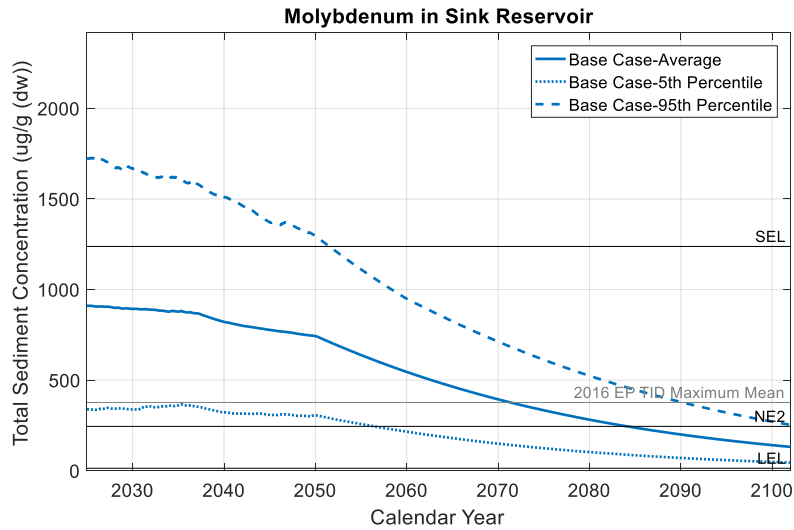


Figure 3.5-36 Sediment Quality Predictions – Base Case - Nickel

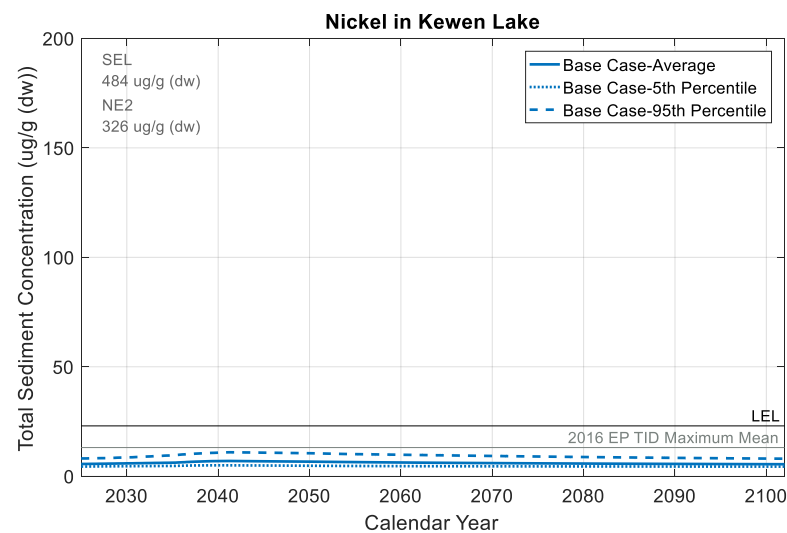
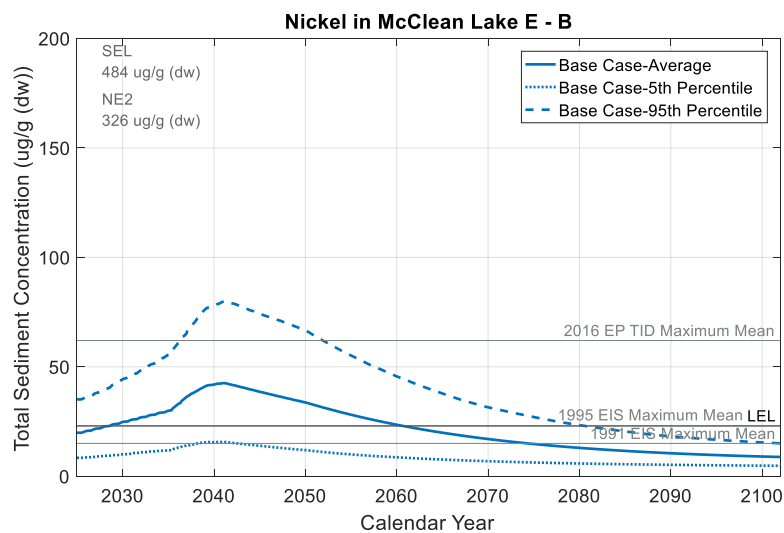
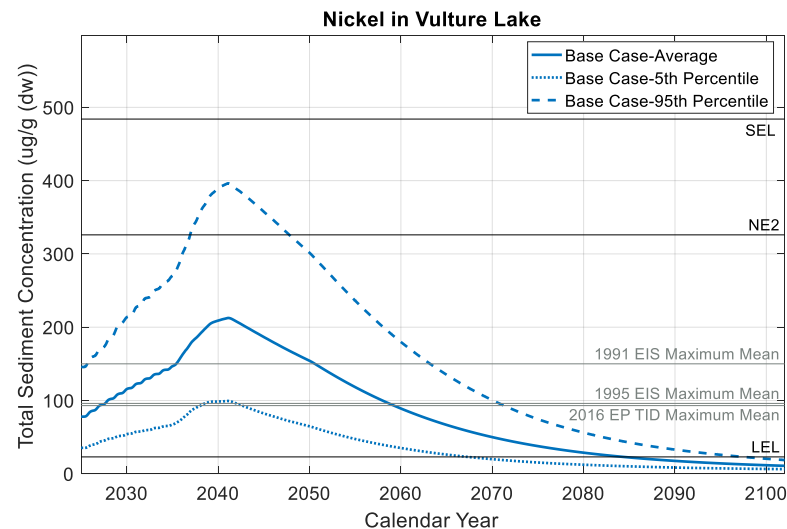
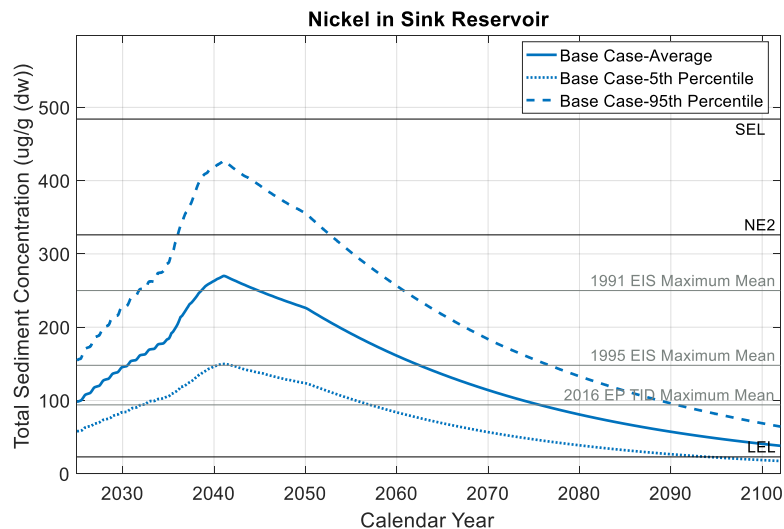


Figure 3.5-37 Sediment Quality Predictions – Base Case - Selenium

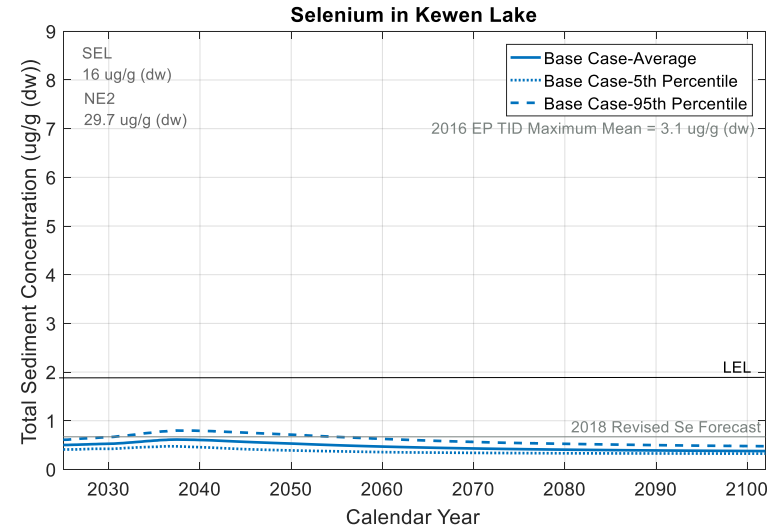
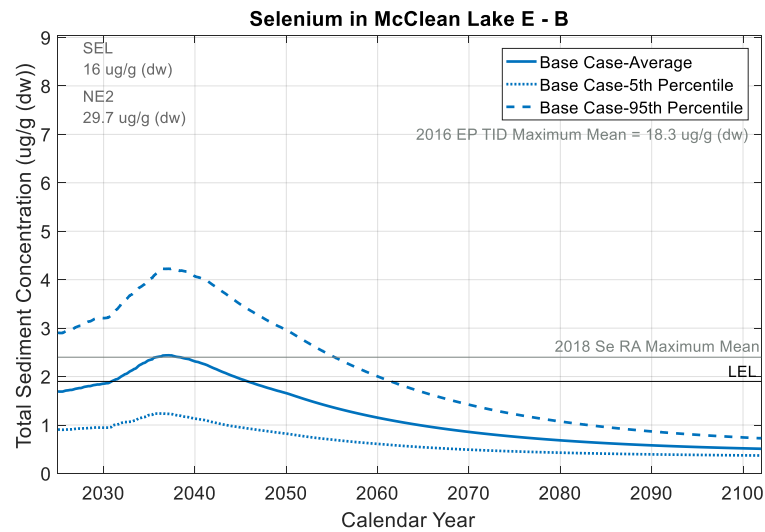
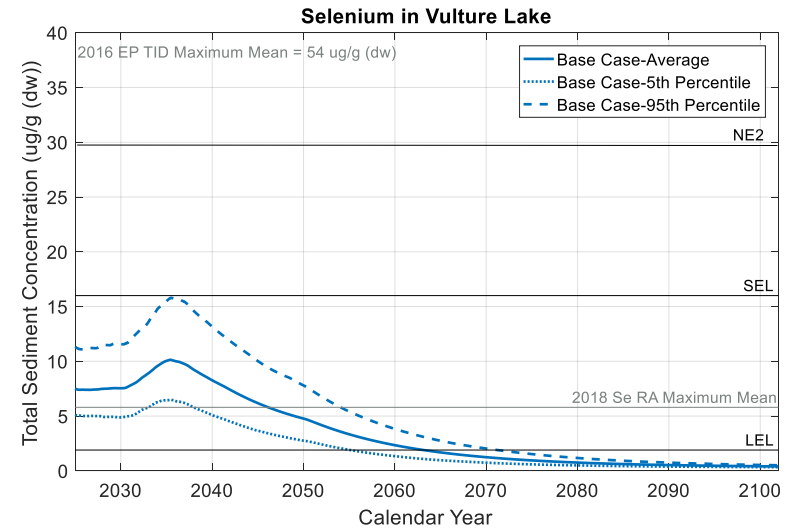
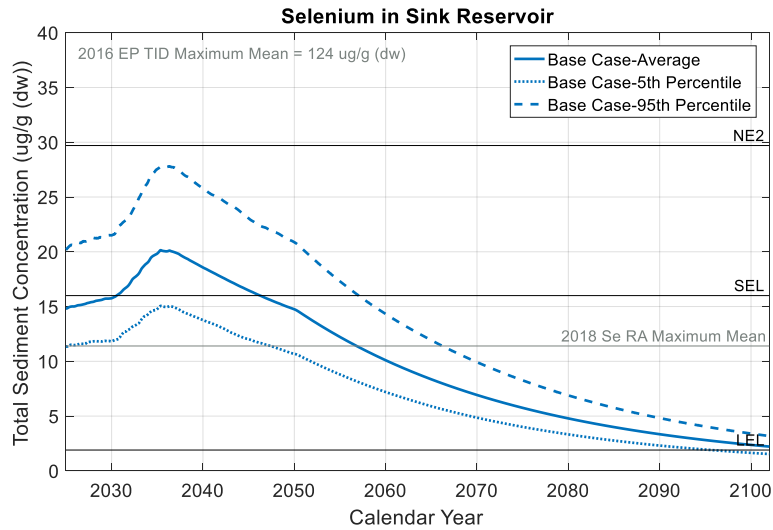


Figure 3.5-38 Sediment Quality Predictions – Base Case - Silver

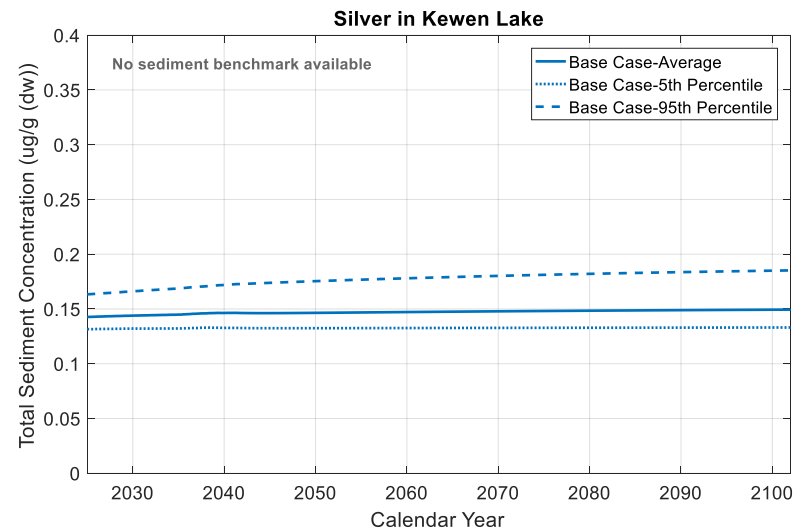
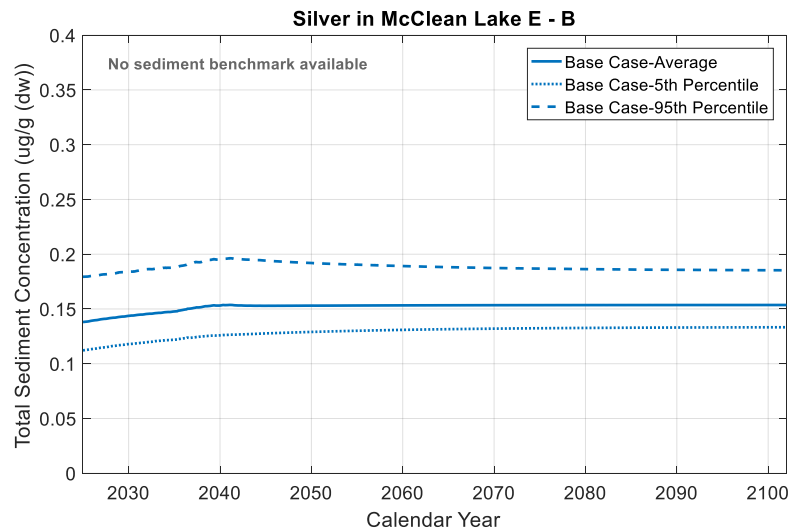
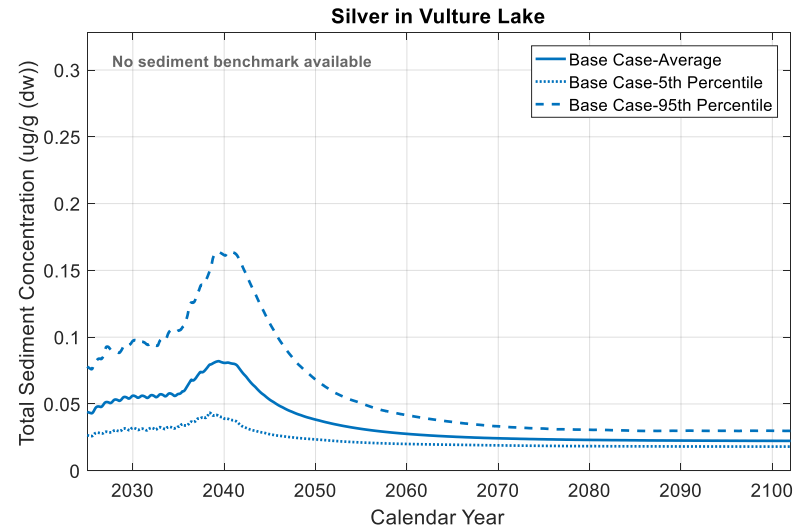
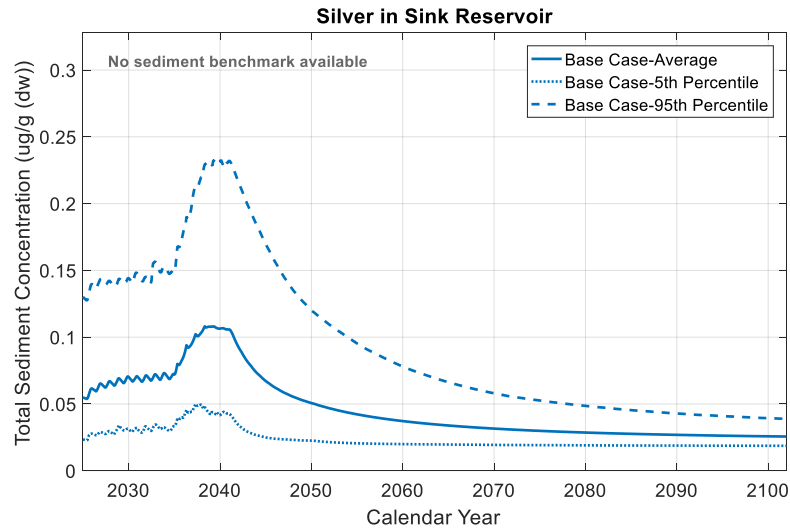


Figure 3.5-39 Sediment Quality Predictions – Base Case – Thallium

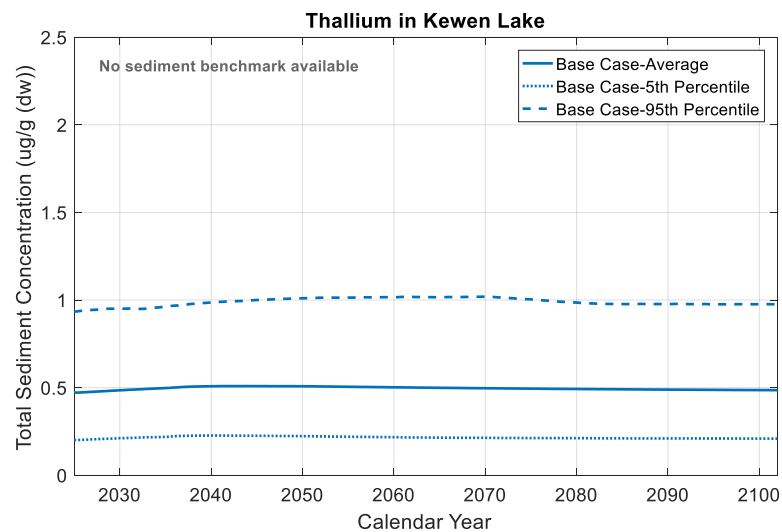
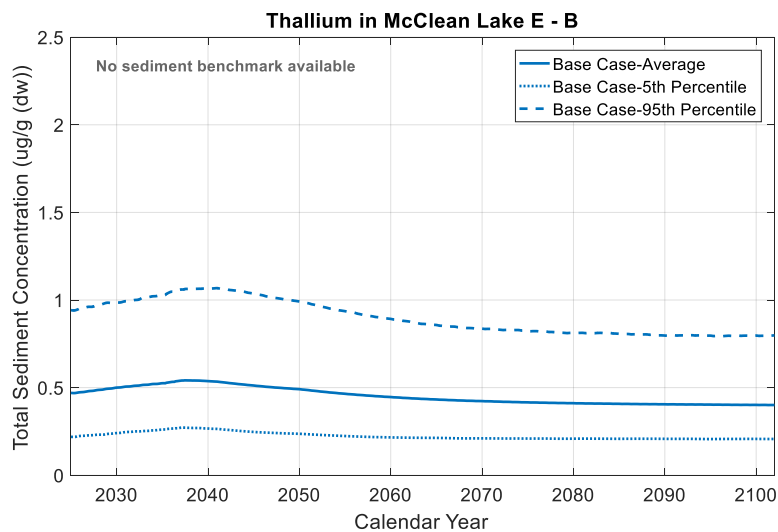
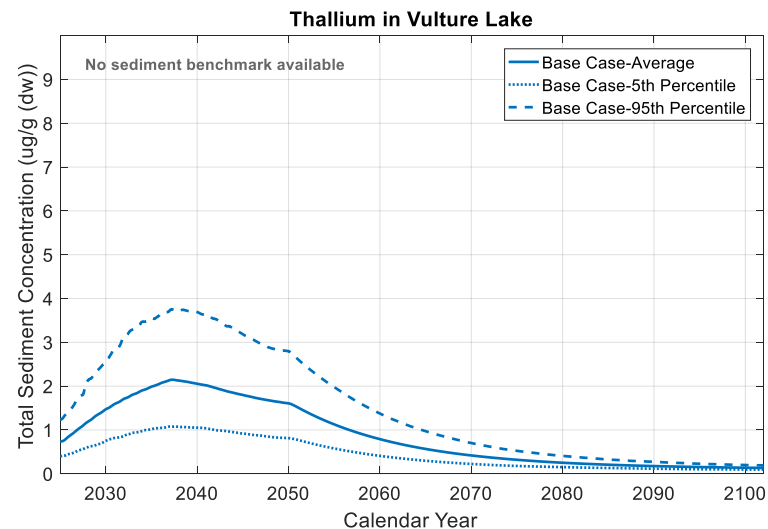
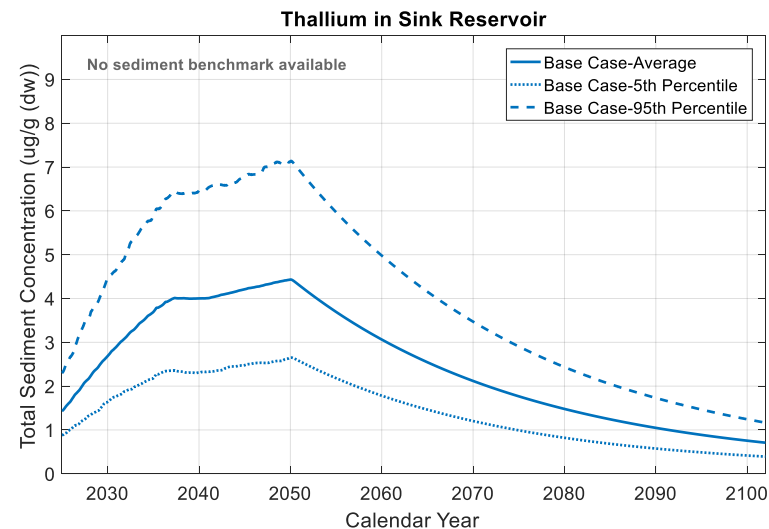


Figure 3.5-40 Sediment Quality Predictions – Base Case - Uranium

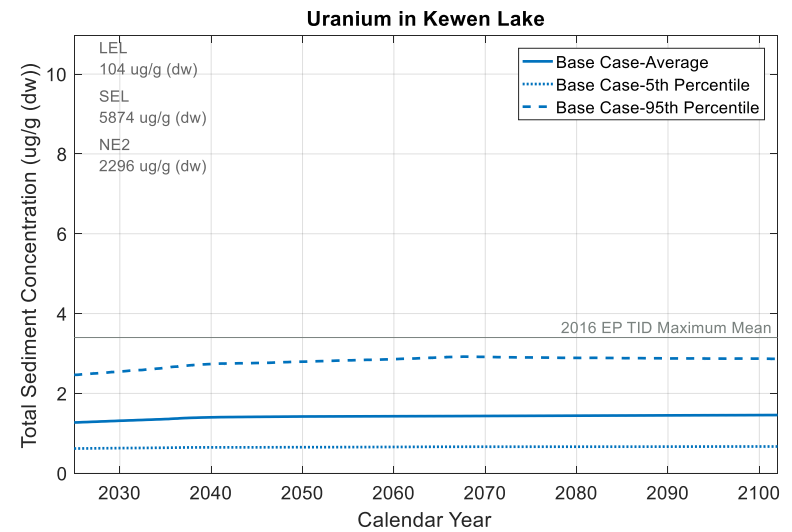
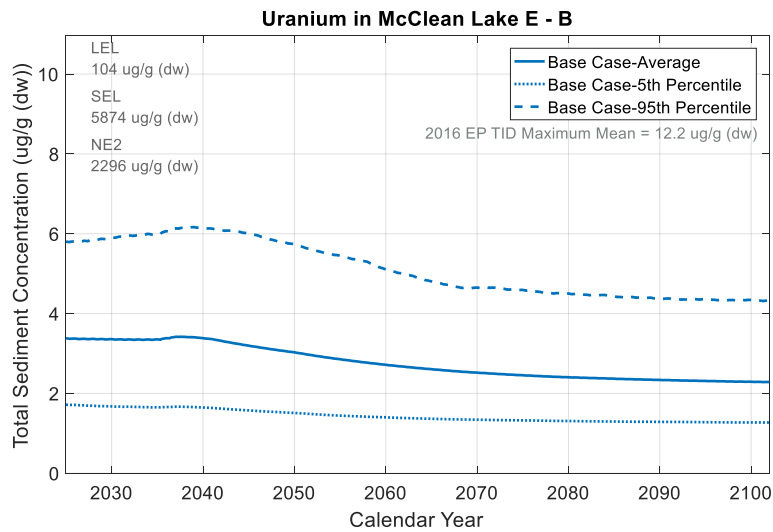
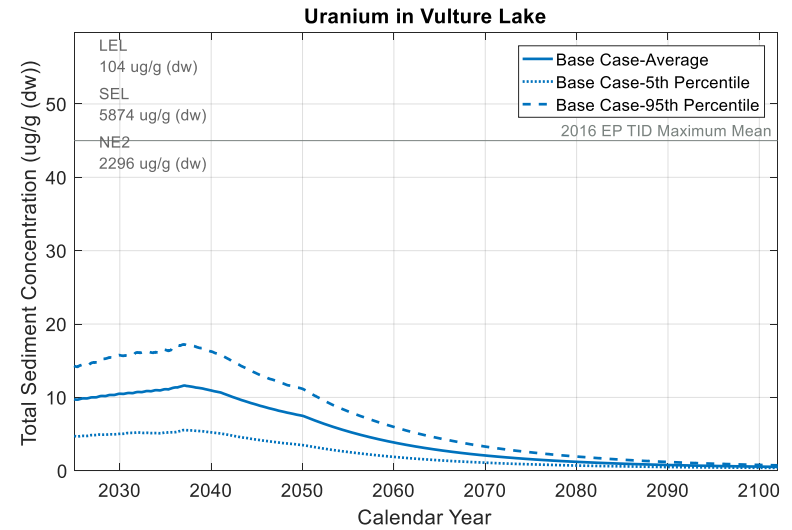
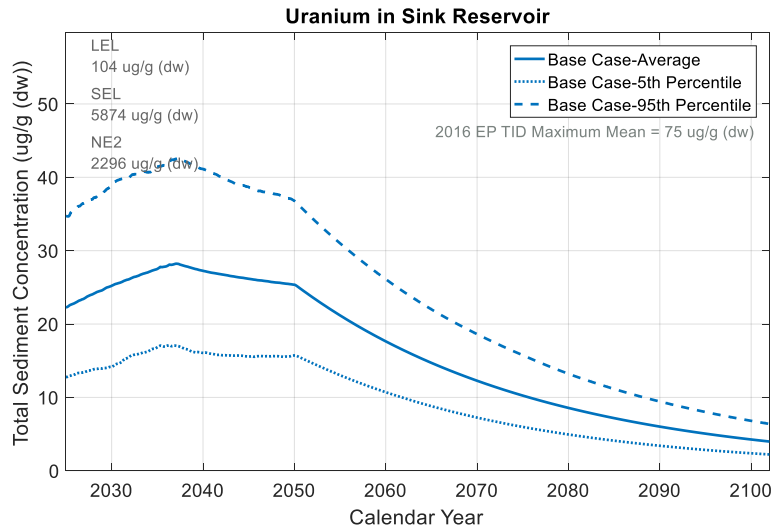


Figure 3.5-41 Sediment Quality Predictions – Base Case - Zinc

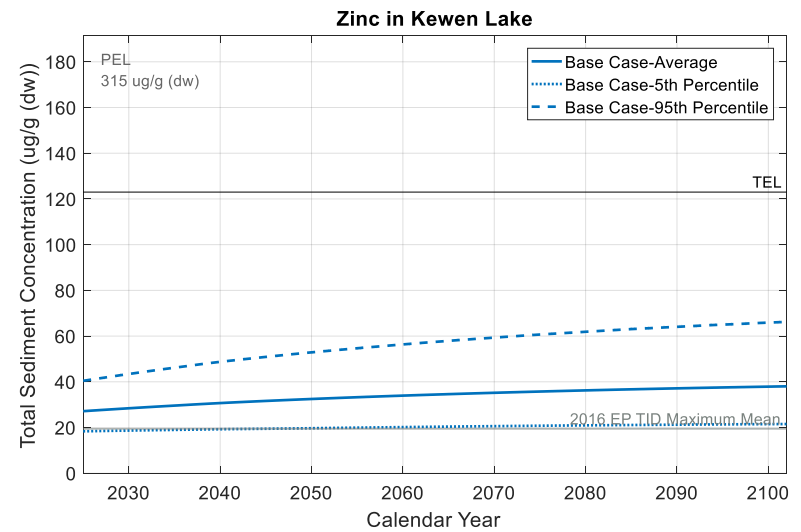
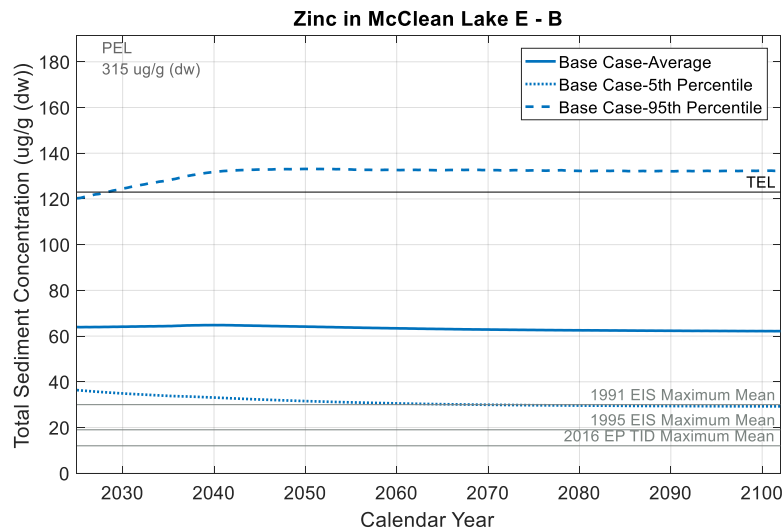
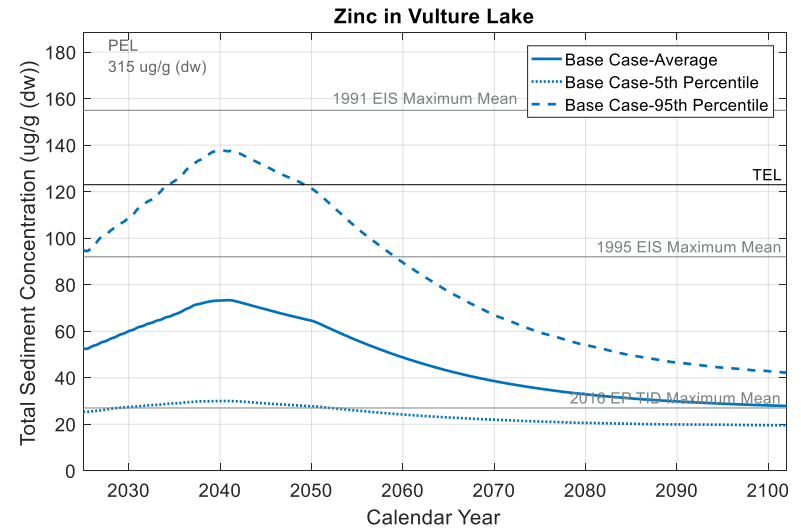
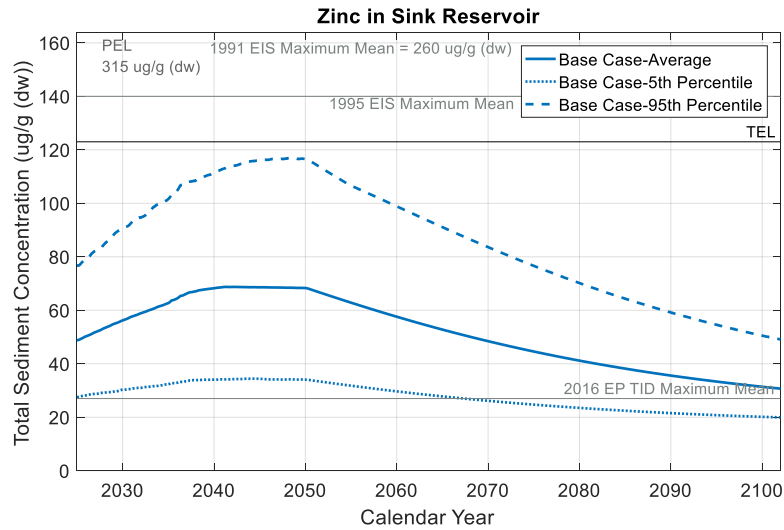


Figure 3.5-42 Sediment Quality Predictions – Base Case – Lead-210

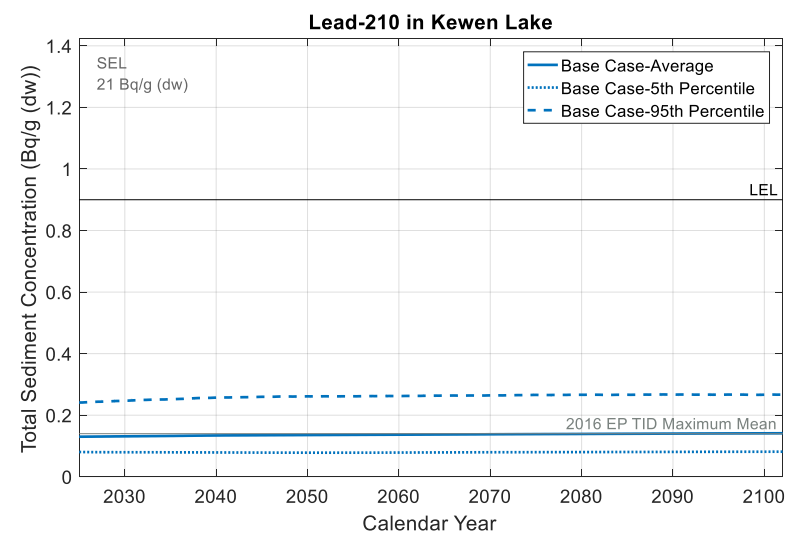
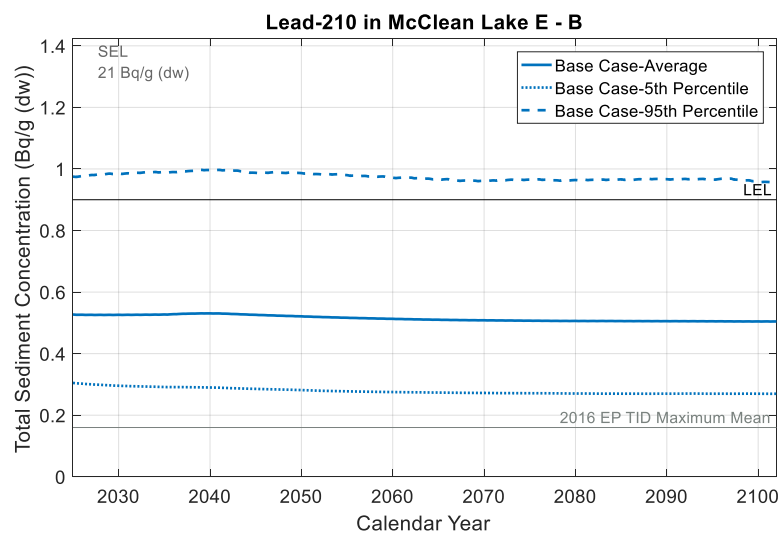
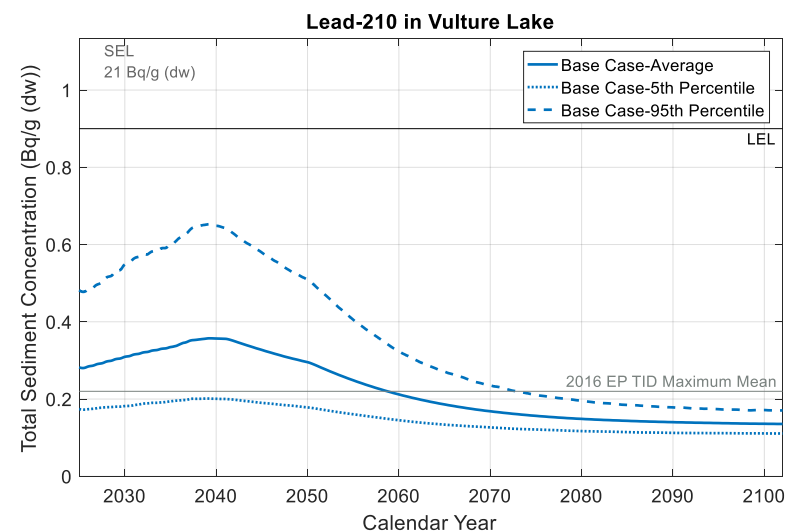
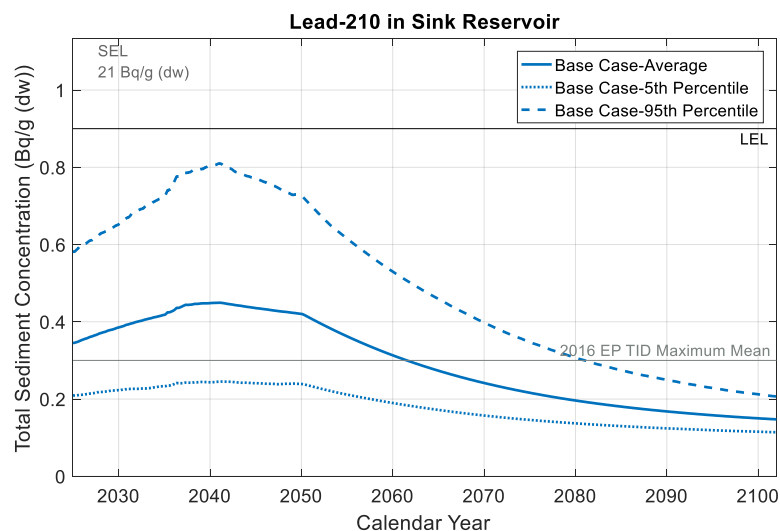


Figure 3.5-43 Sediment Quality Predictions – Base Case – Polonium-210

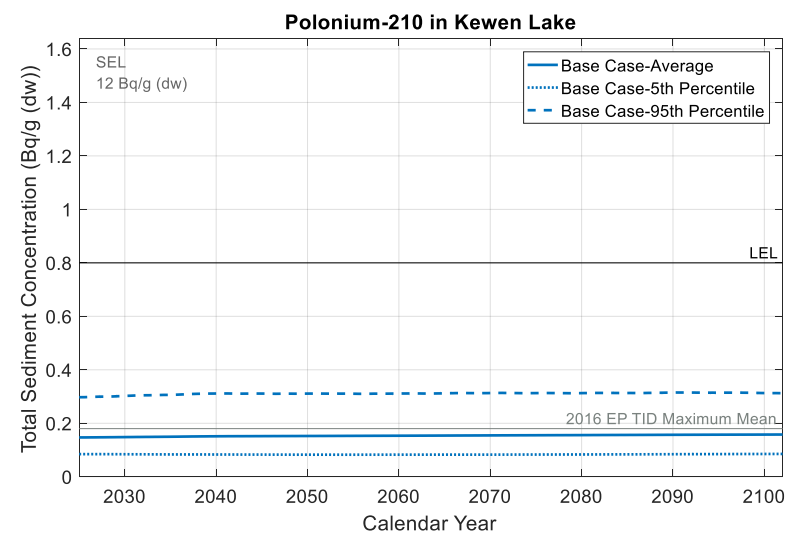
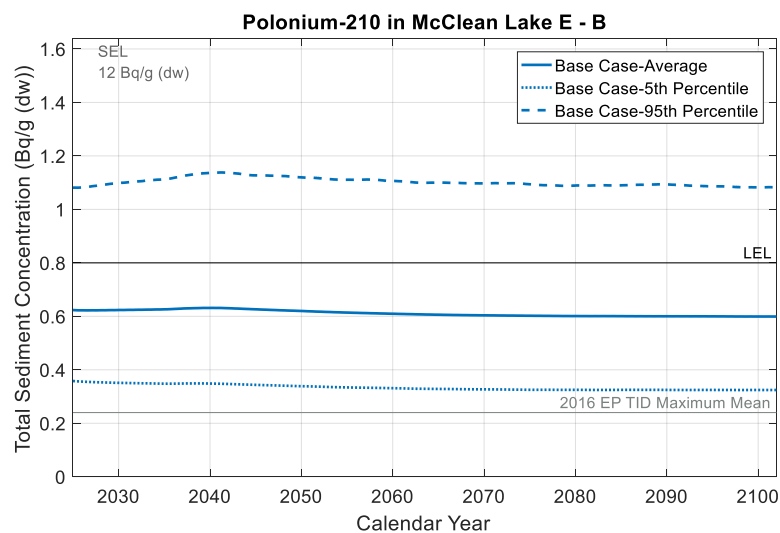
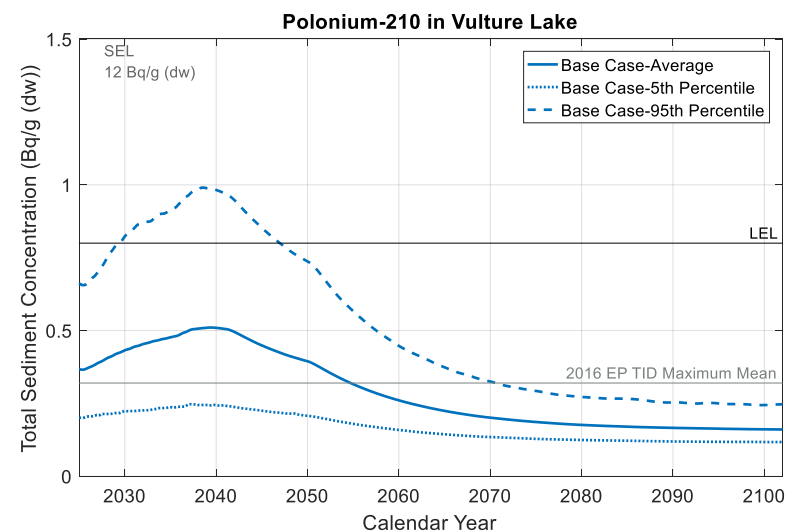
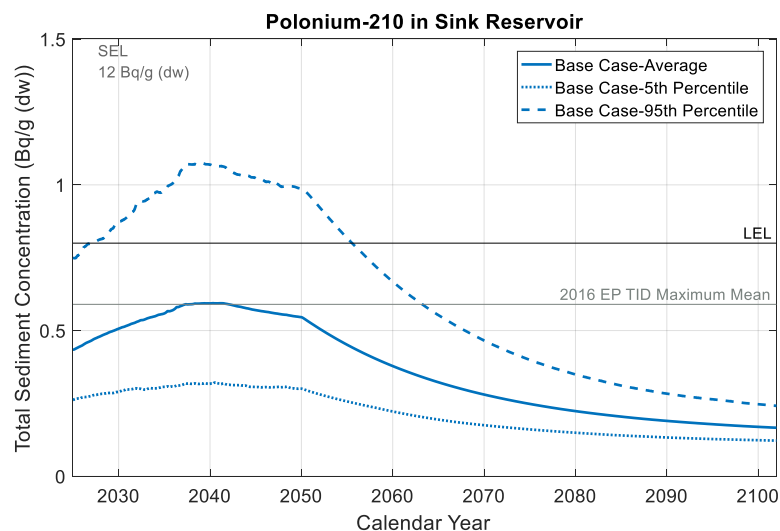


Figure 3.5-44 Sediment Quality Predictions – Base Case – Radium-226

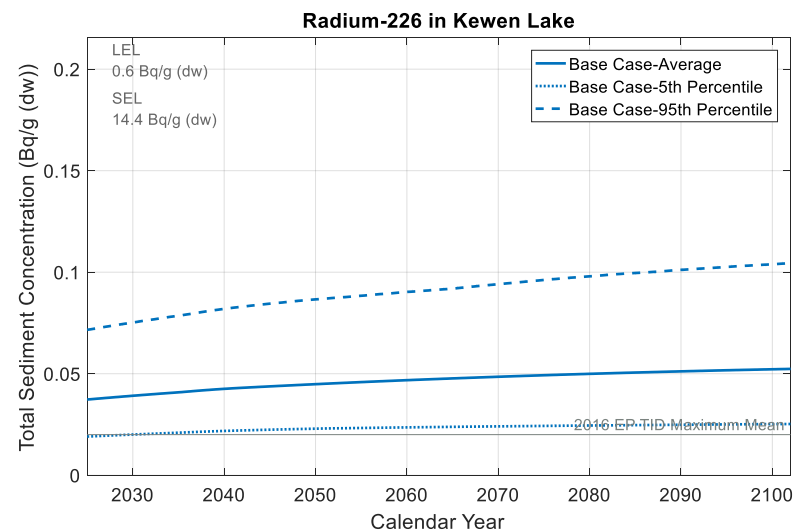
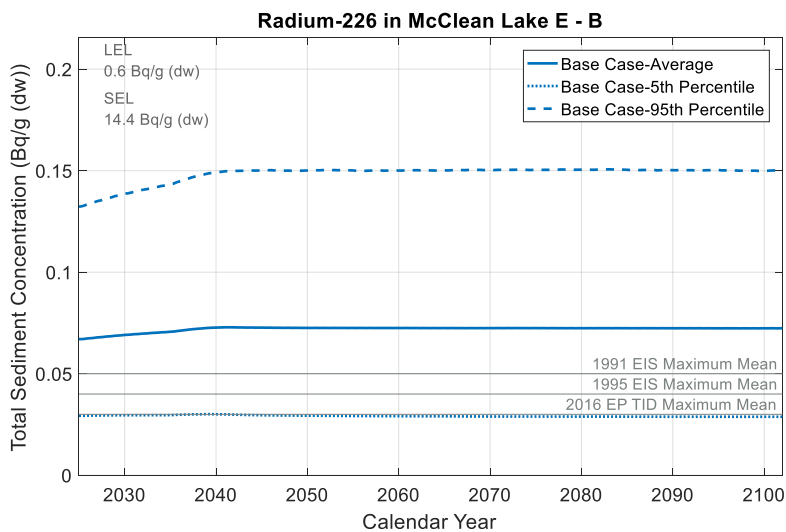
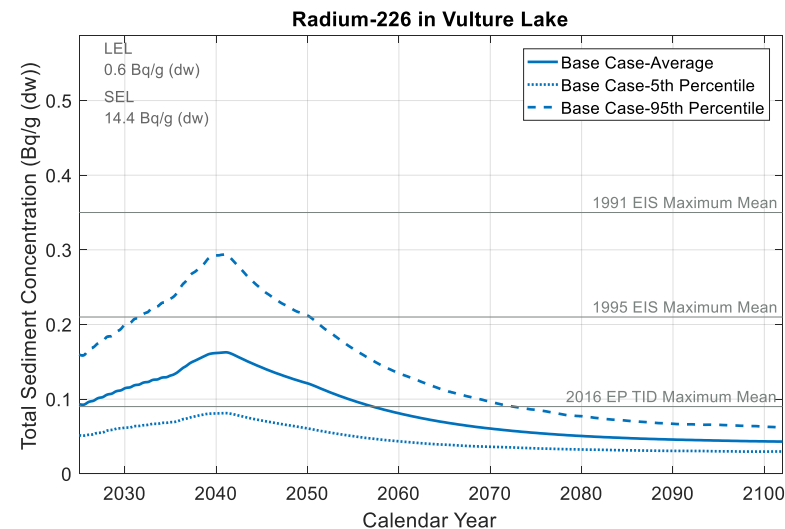
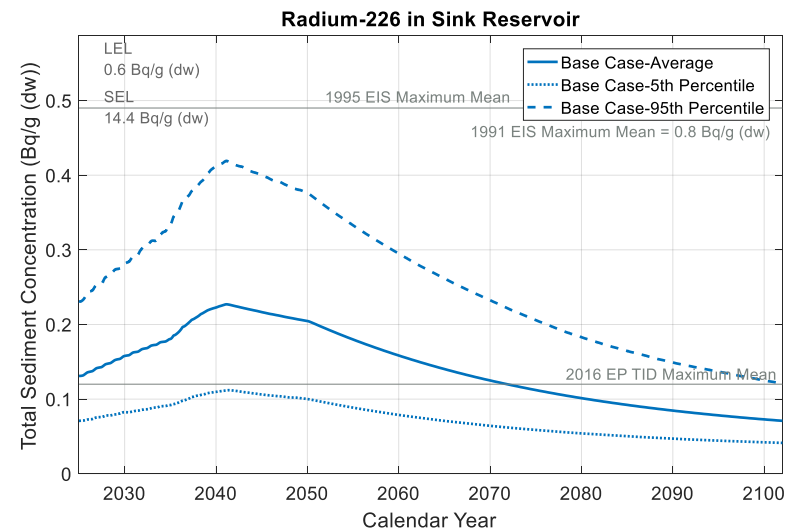


Figure 3.5-45 Sediment Quality Predictions – Base Case – Thorium-230

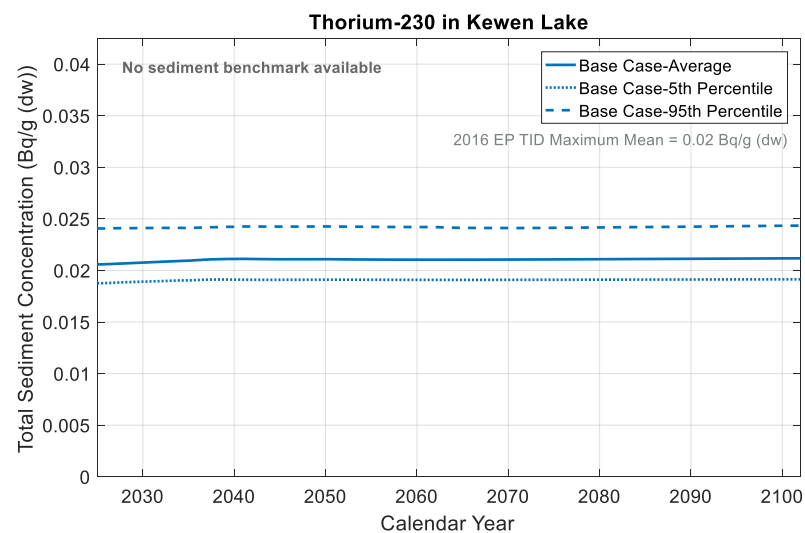
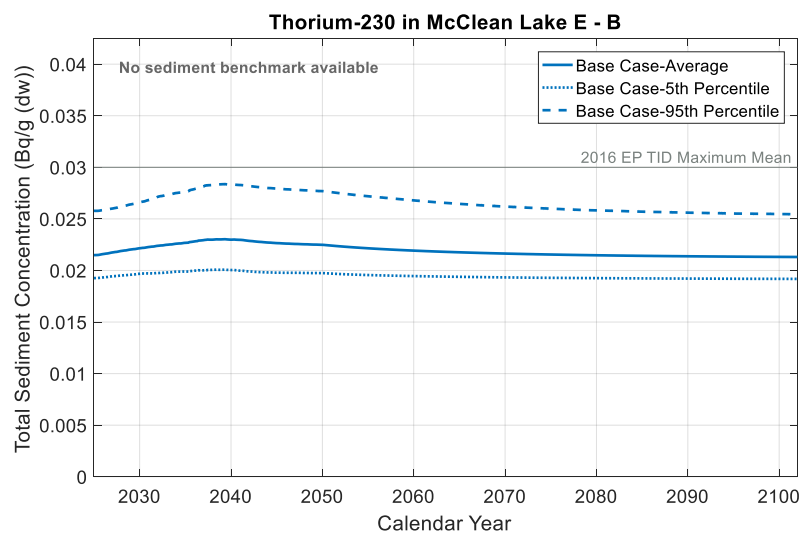
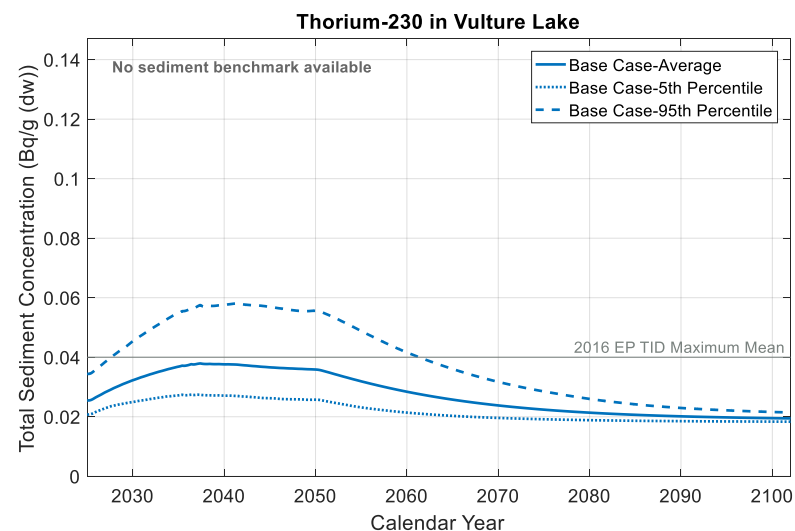
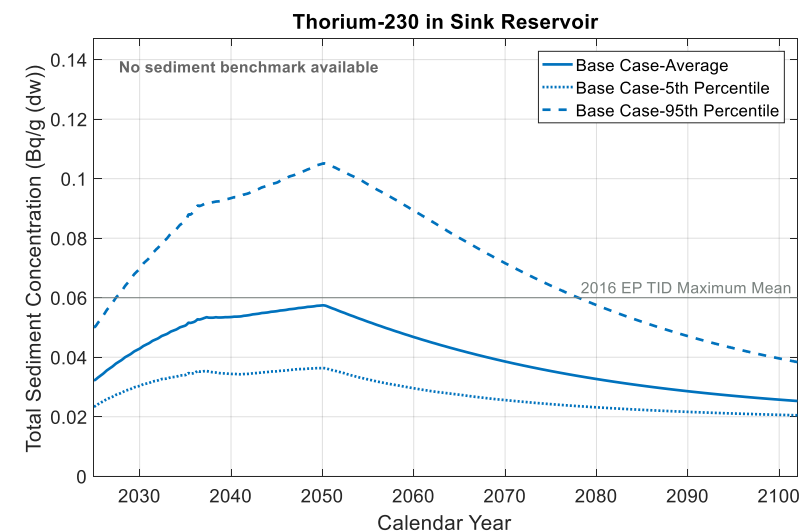
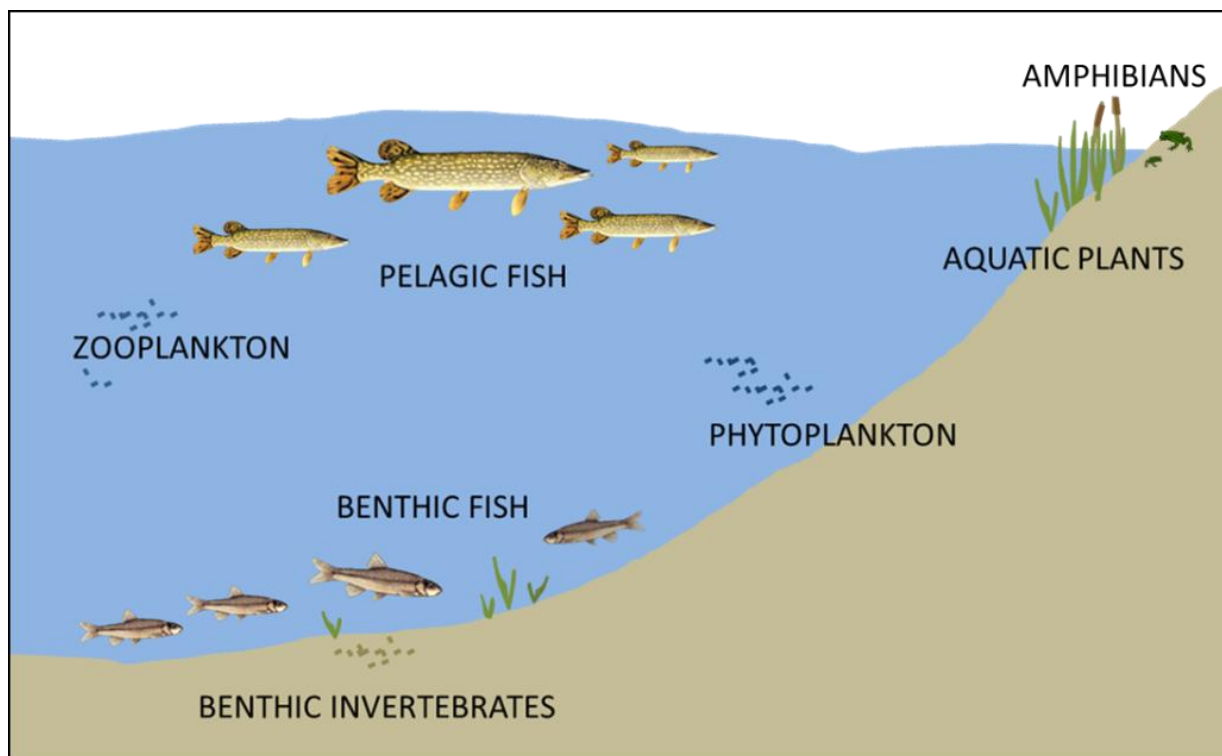
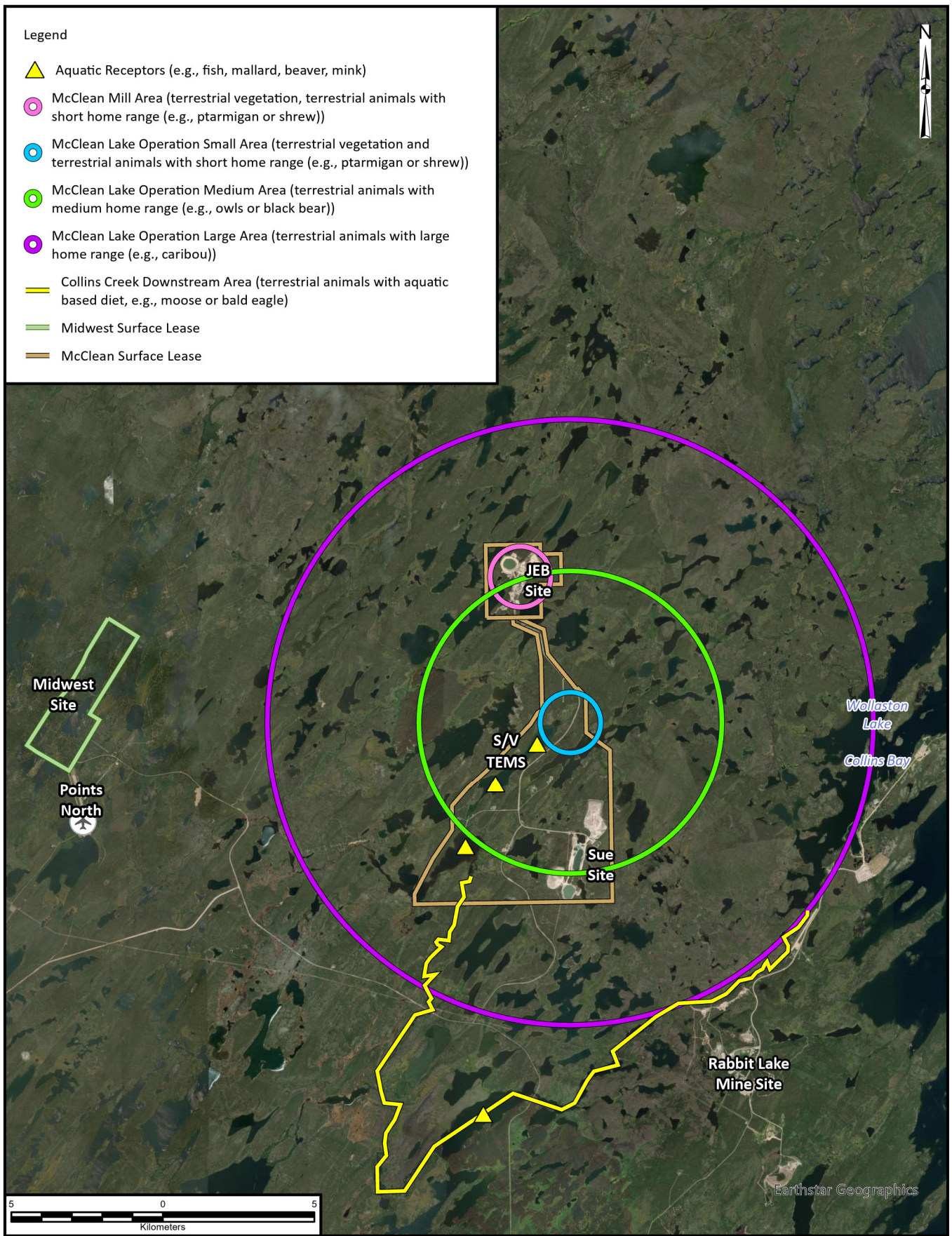


Figure 4.4-1 Aquatic Receptors Considered in the Assessment





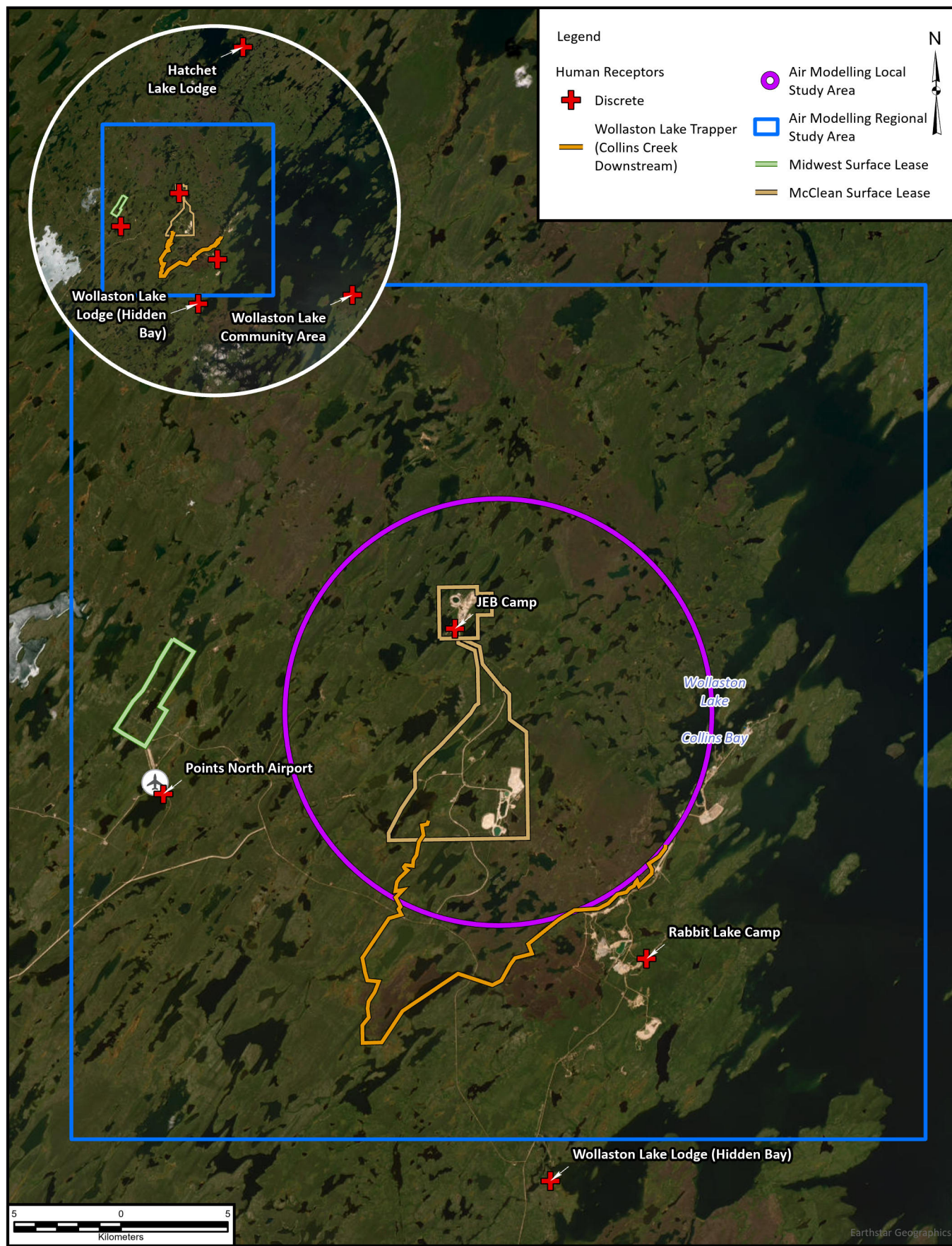
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 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-01 1:18 PM Scale: 1:175,000
 Data Sources: ORANO Canada Inc., CanNorth

McCLEAN LAKE OPERATION

FIGURE 4.4-2
 LOCATIONS OF ECOLOGICAL RECEPTORS

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2





Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-01 1:31 PM Scale: 1:250,000
 Data Sources: ORANO Canada Inc., CanNorth, IEC

McCLEAN LAKE OPERATION

FIGURE 4.5-1
 LOCATION OF HUMAN HEALTH RECEPTORS

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



Figure 4.6-1 Conceptual Site Model – McClean Lake Operation Releases

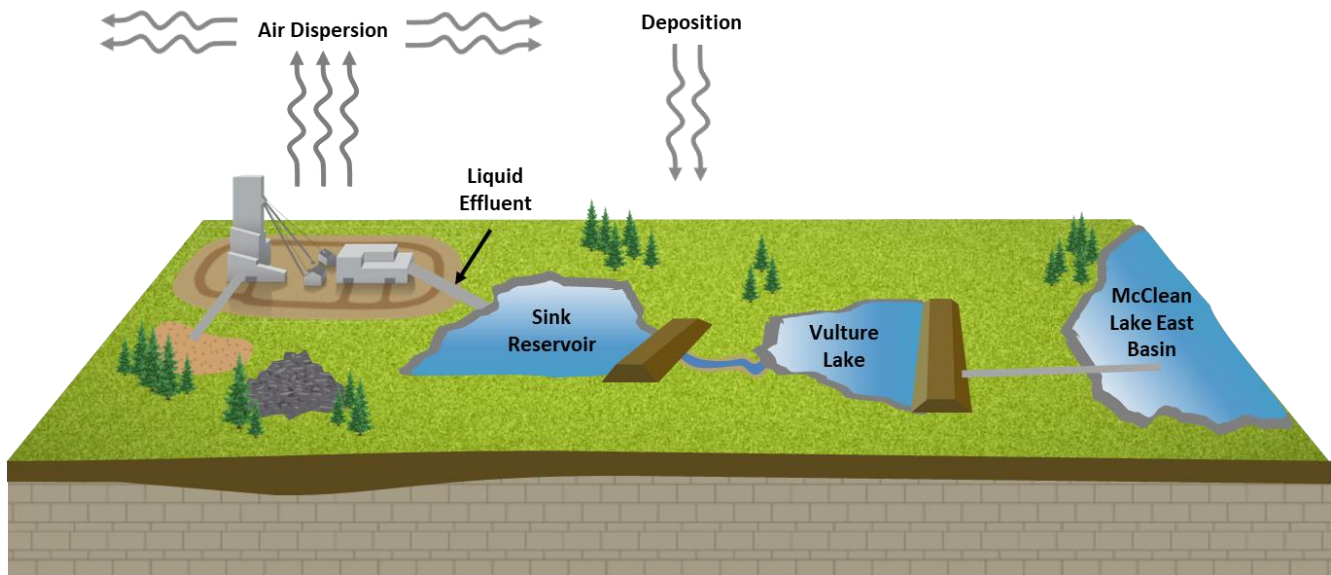
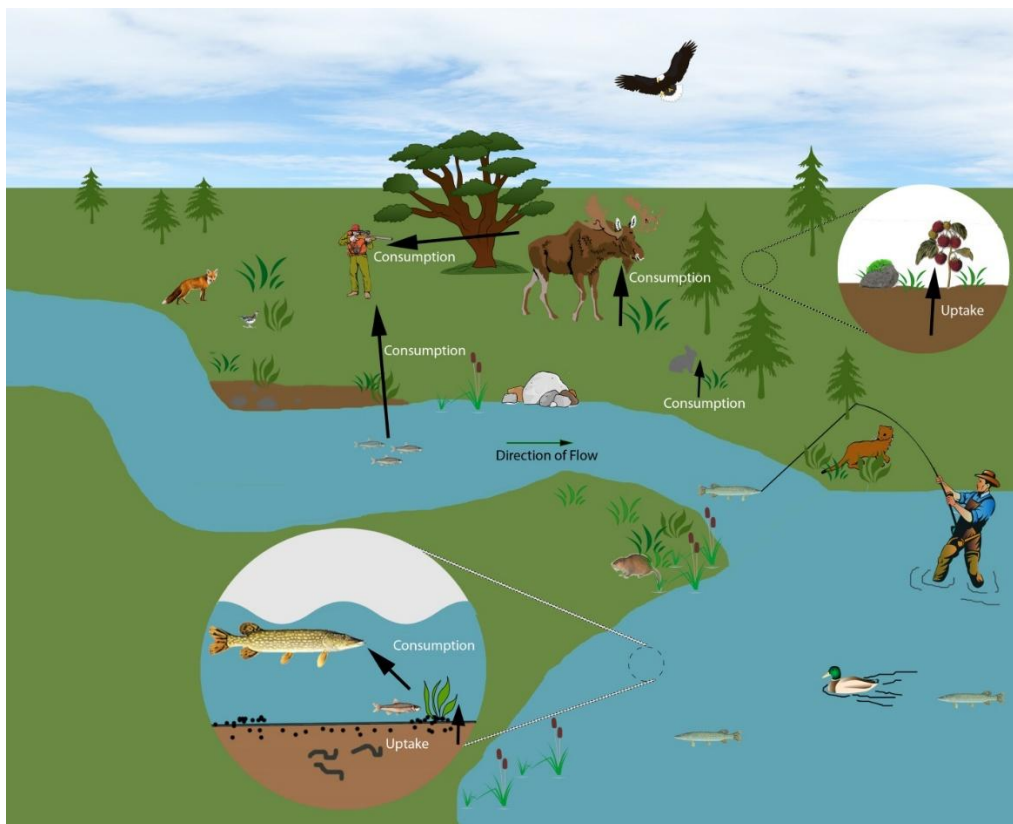
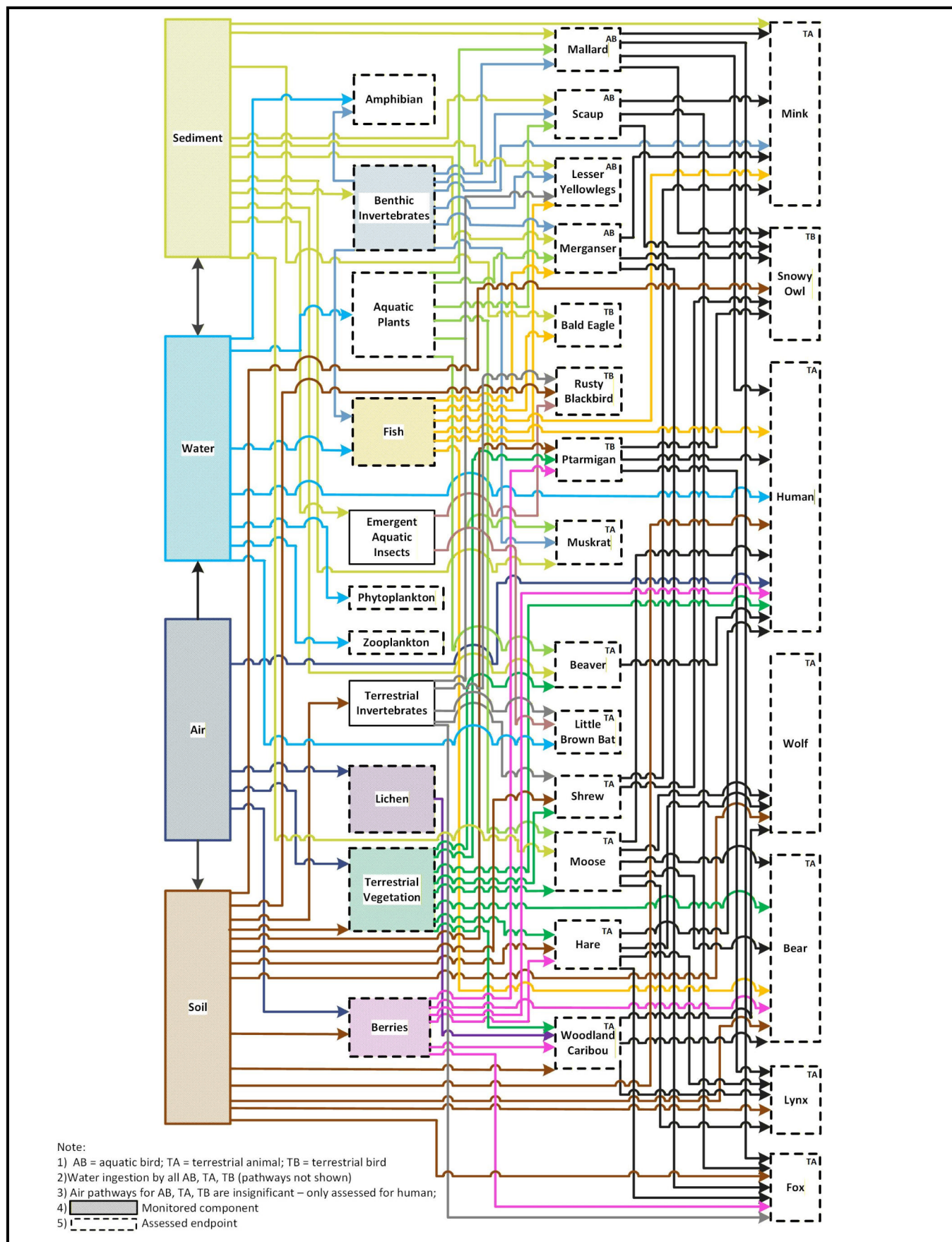


Figure 4.6-2 Conceptual Site Model – Environmental Risk Assessment



Note: figure is conceptual only, not all pathways or receptors are shown. See Section 4.3 for details of ecological receptors considered in the current assessment.



Projection: N/A
 Compiled: T.Lohman
 Date: 2025-12-01 4:33 PM
 Data Sources: ORANO Canada Inc.

Drawn: T.Lohman

Scale: N/A

McCLean Lake Operation

FIGURE 4.6-3
 CONCEPTUAL SITE MODEL - EXPOSURE PATHWAYS

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2



orano

Figure 5.3-1 Assessment of Effects on Aquatic Biota - Chloride

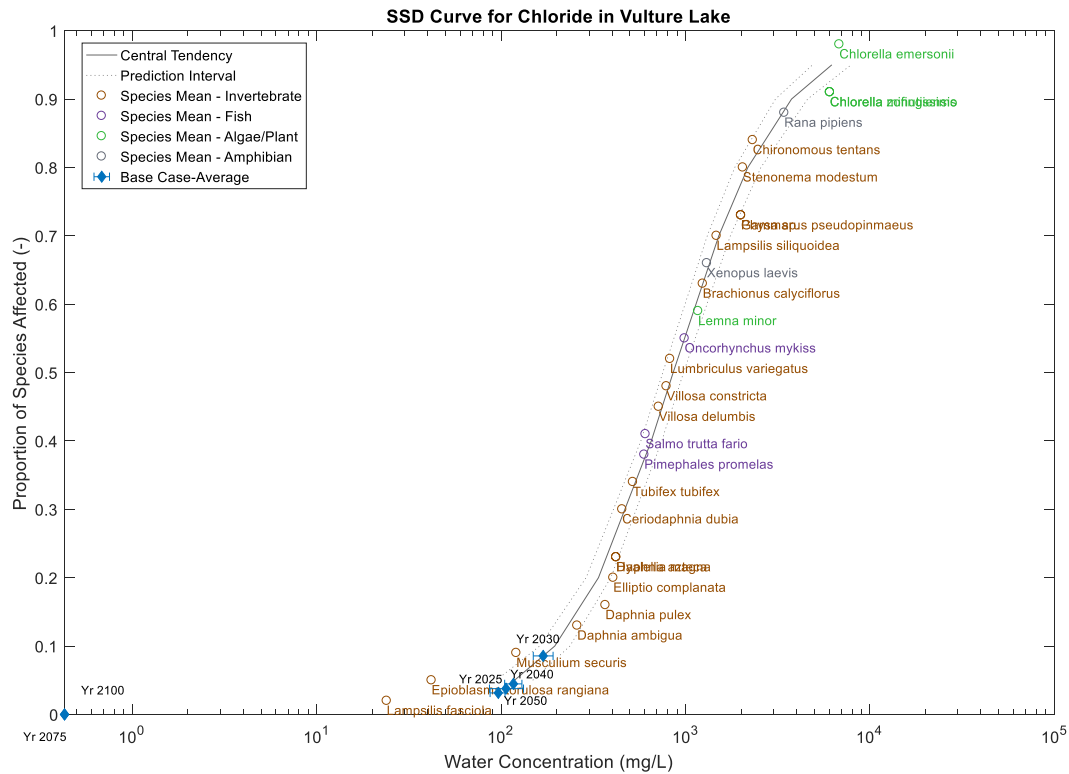
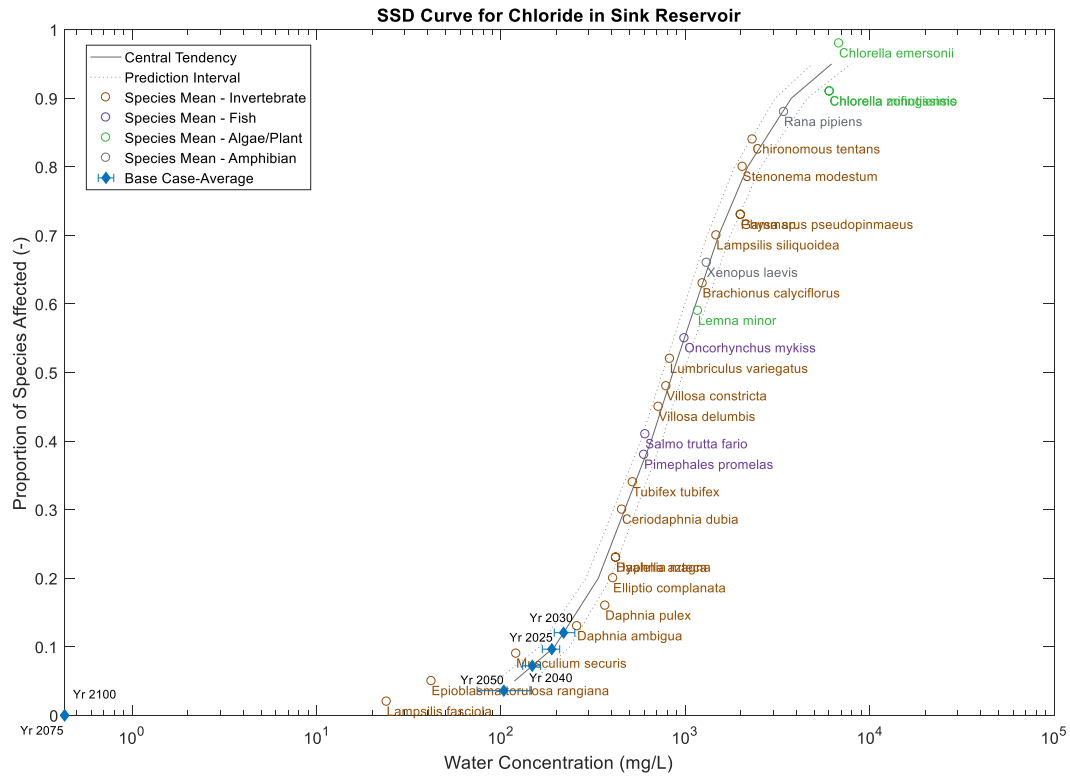


Figure 5.3-2 Assessment of Effects on Aquatic Biota - Fluoride

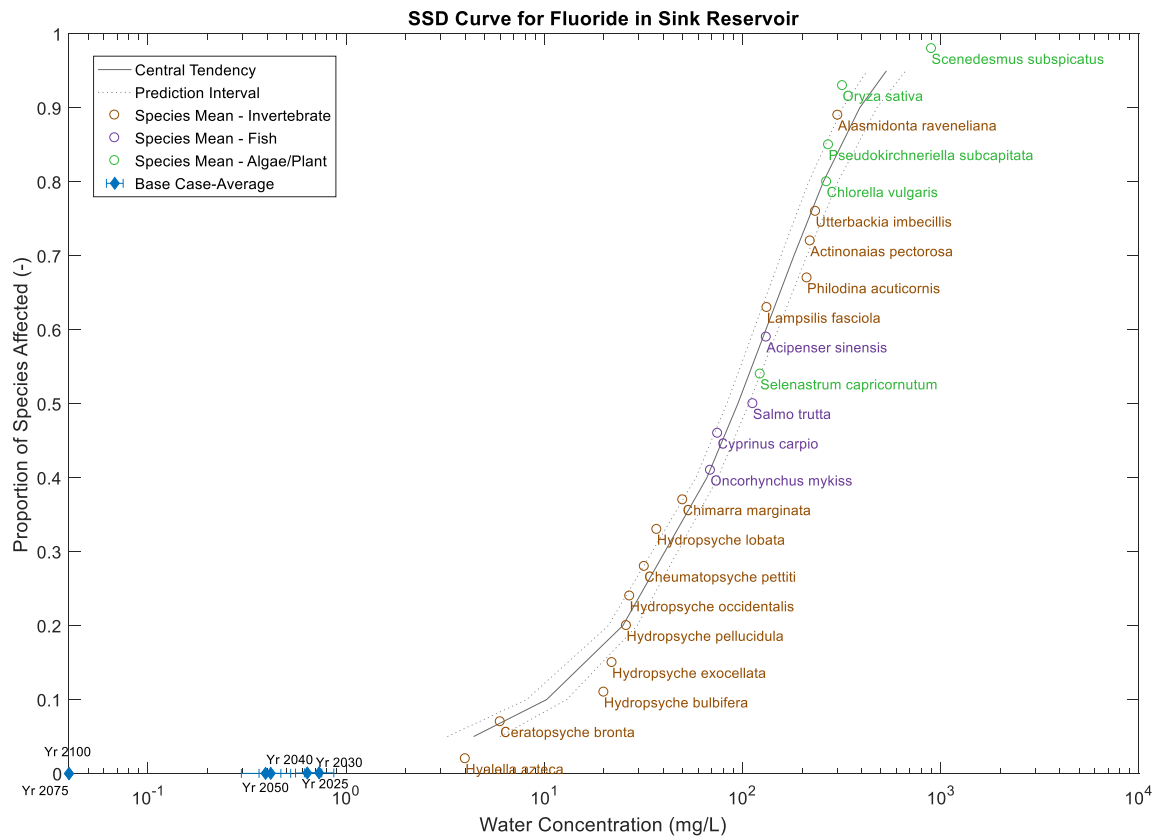


Figure 5.3-3 Assessment of Effects on Aquatic Biota - Nitrate

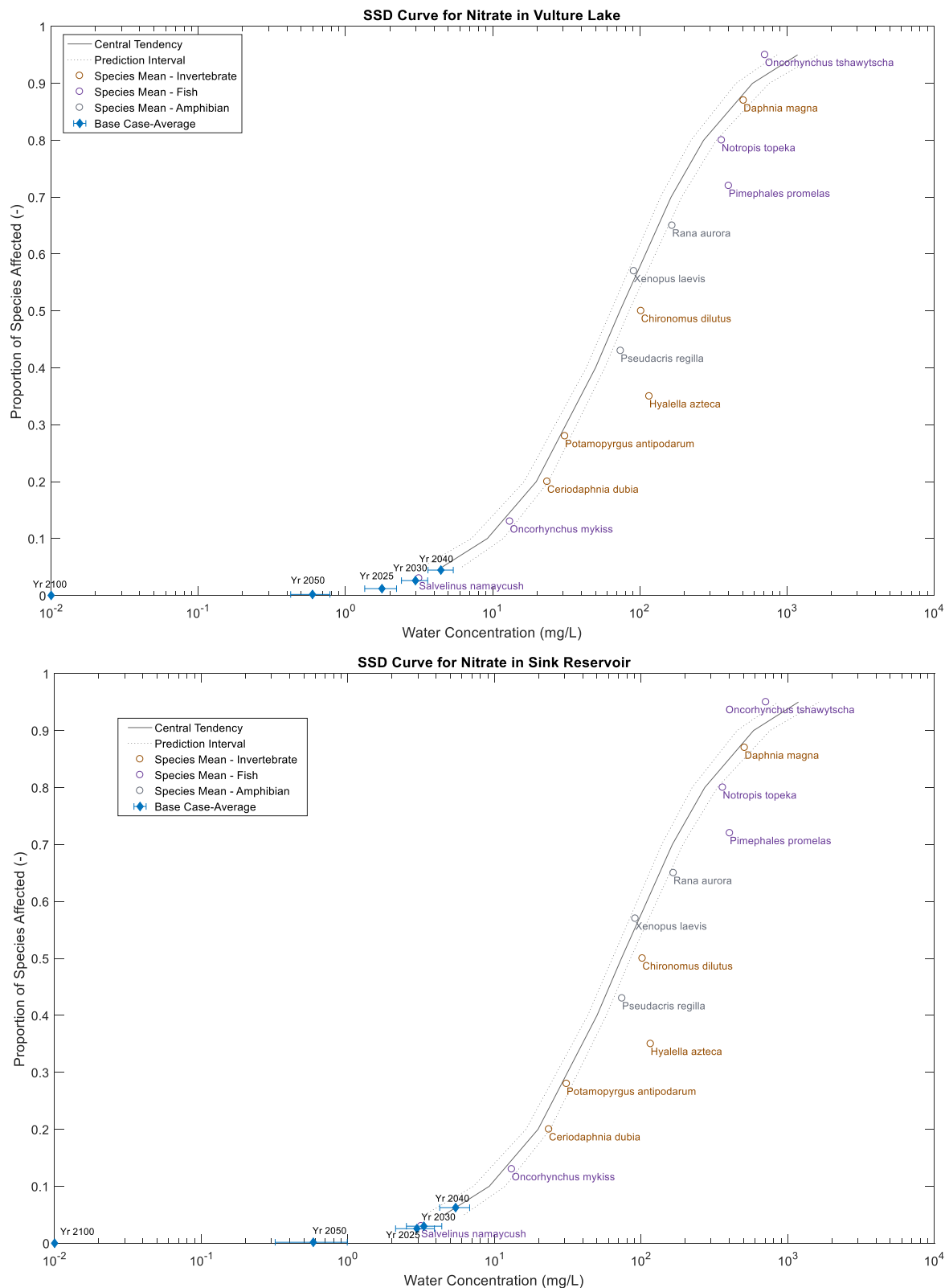


Figure 5.3-4 Assessment of Effects on Aquatic Biota – Potassium

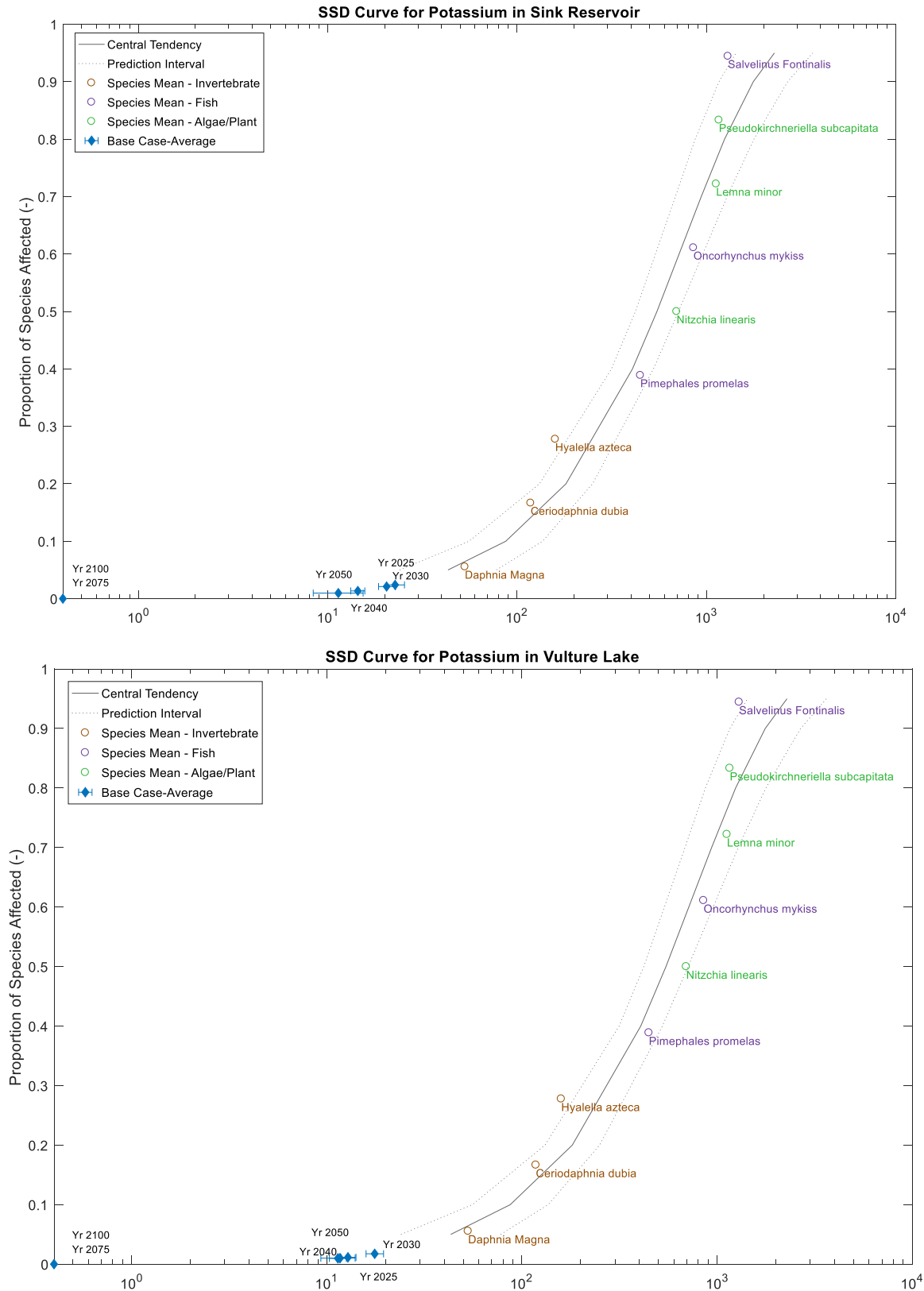
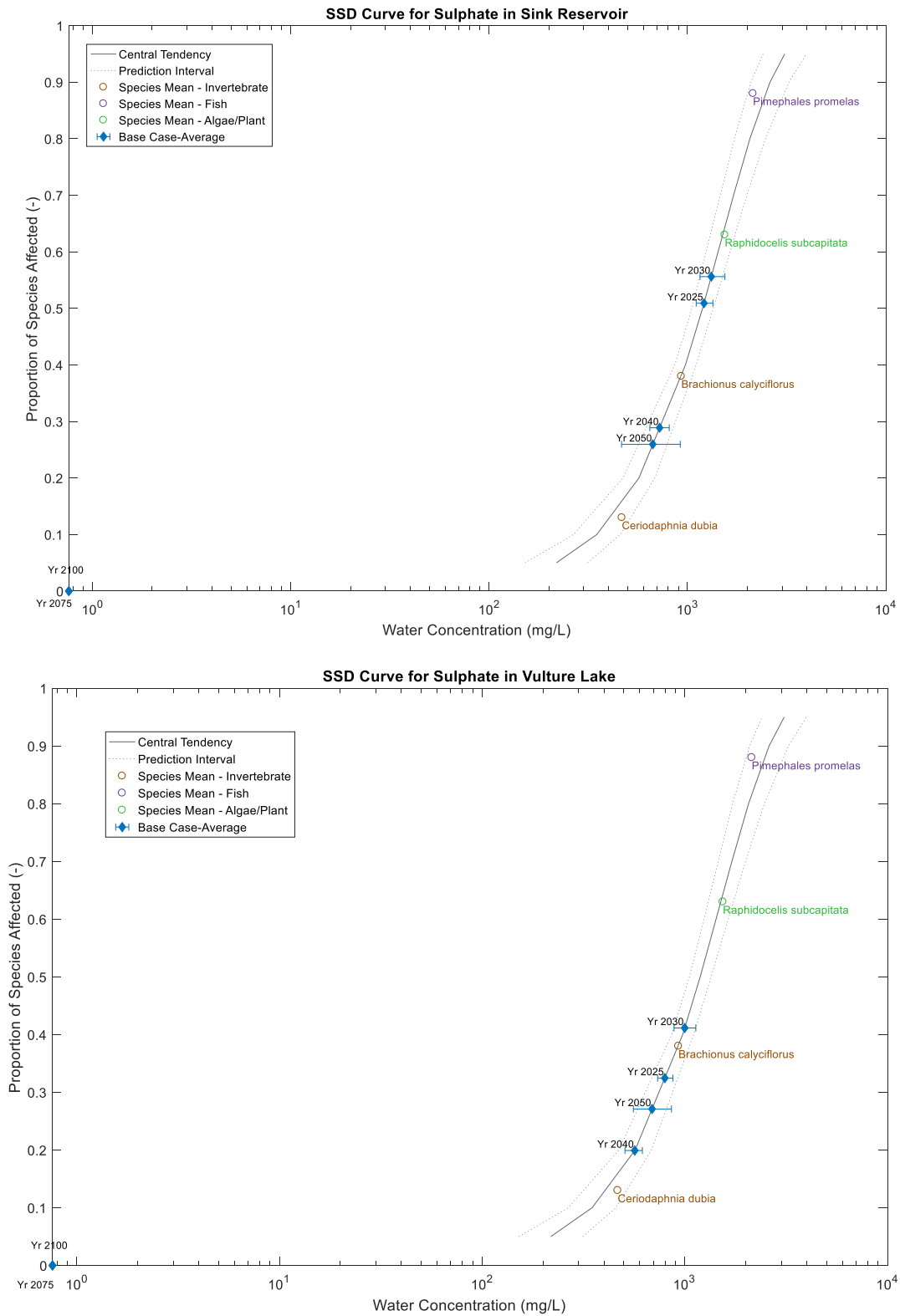
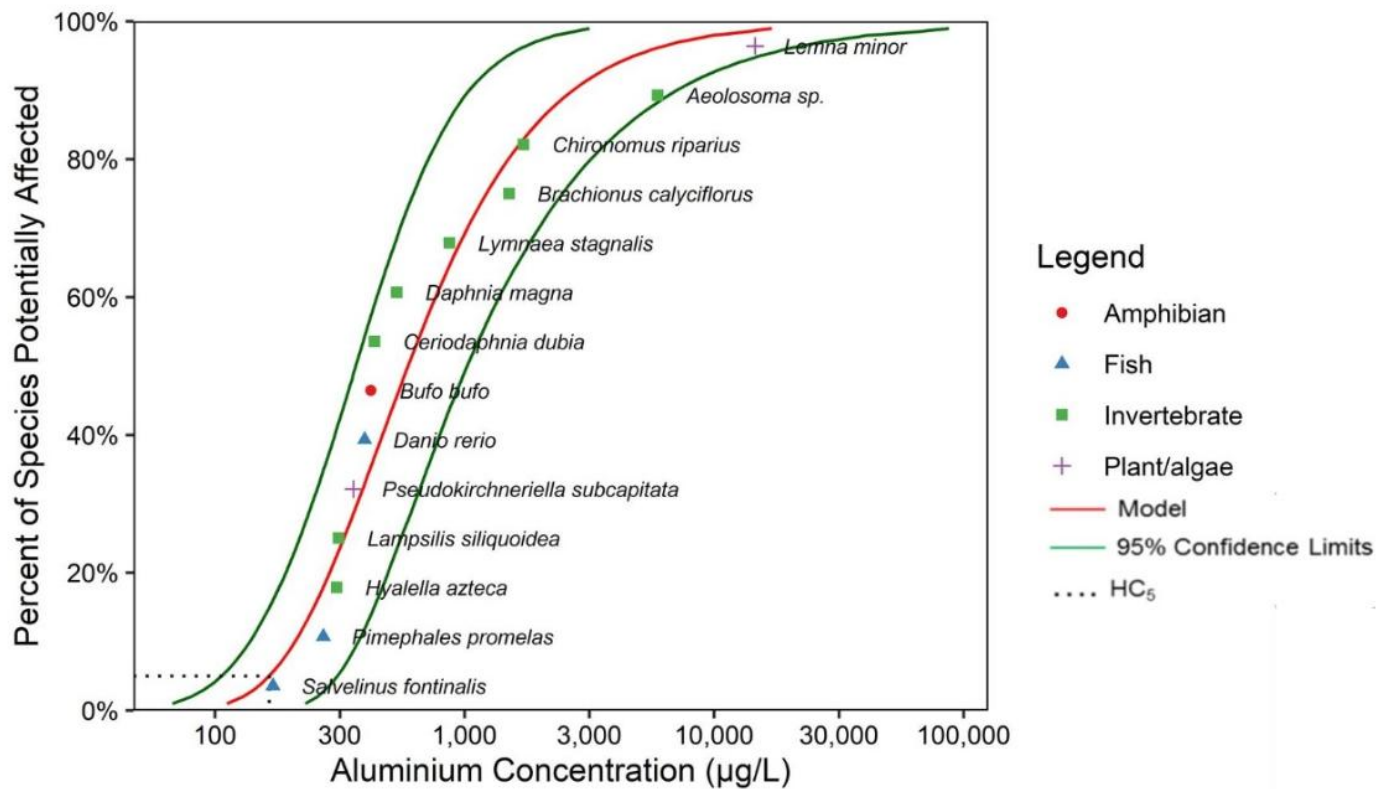


Figure 5.3-5 Assessment of Effects on Aquatic Biota - Sulphate



Note: SSD for hardness 250+ mg/L

Figure 5.3-6 Assessment of Effects on Aquatic Biota – Aluminum



From FEQG (ECCC 2022)
SSD for pH 7.5, DOC 0.5 mg/L, hardness 50 mg/L

Figure 5.3-7 Assessment of Effects on Aquatic Biota - Arsenic

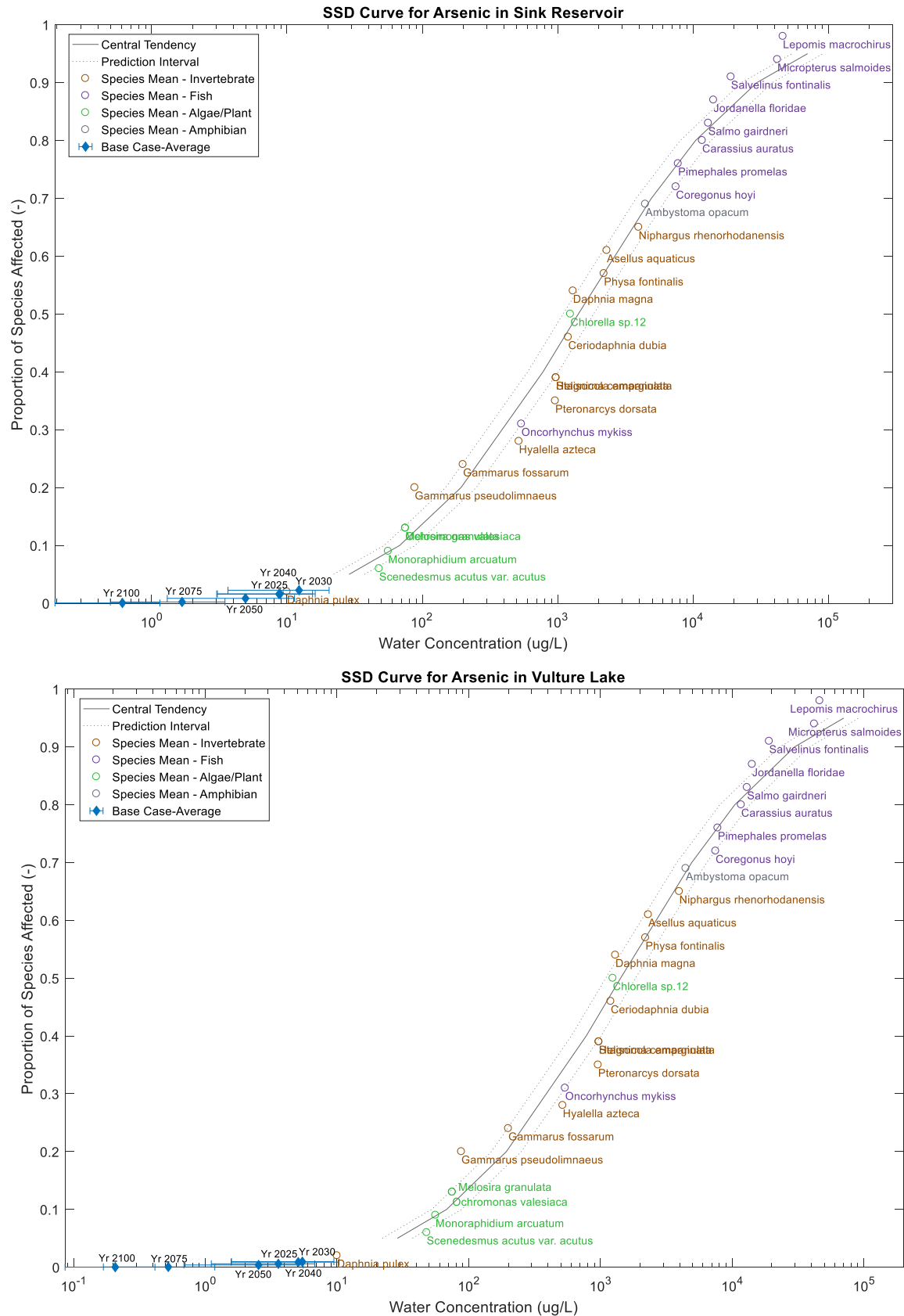


Figure 5.3-8 Assessment of Effects on Aquatic Biota - Cobalt

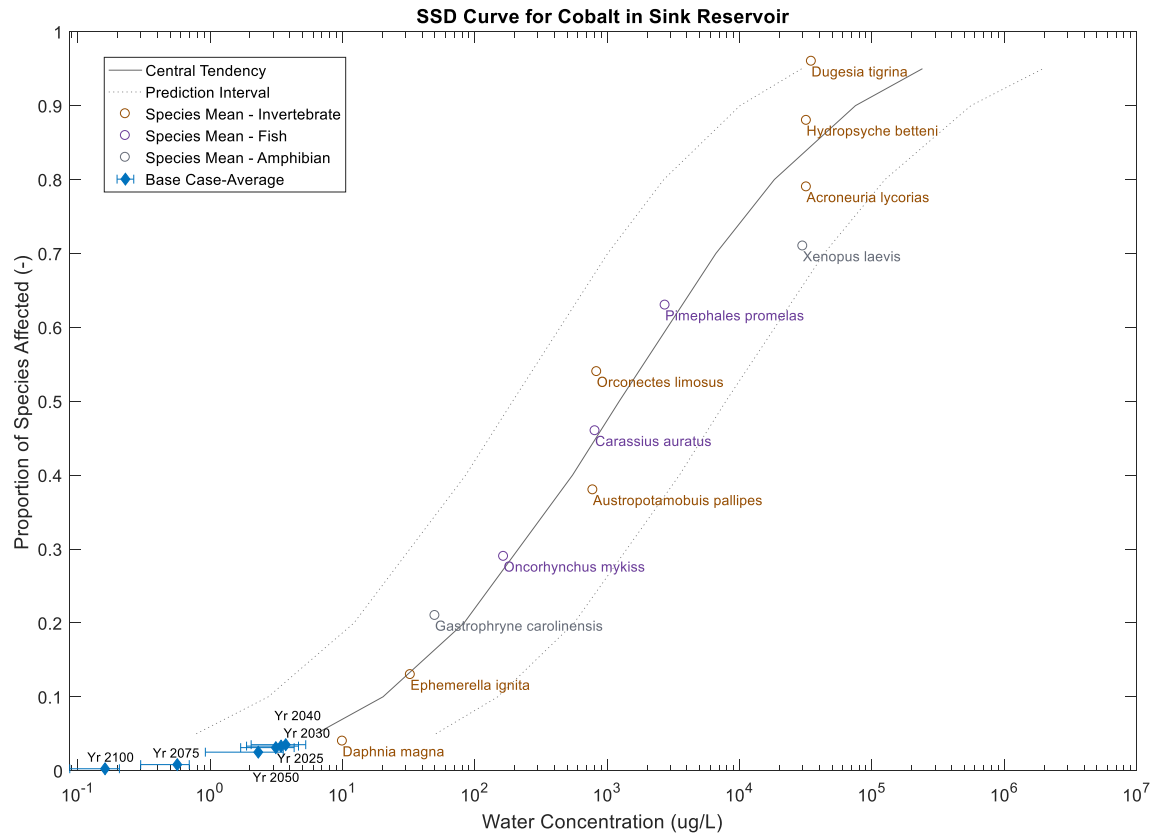


Figure 5.3-9 Assessment of Effects on Aquatic Biota - Iron

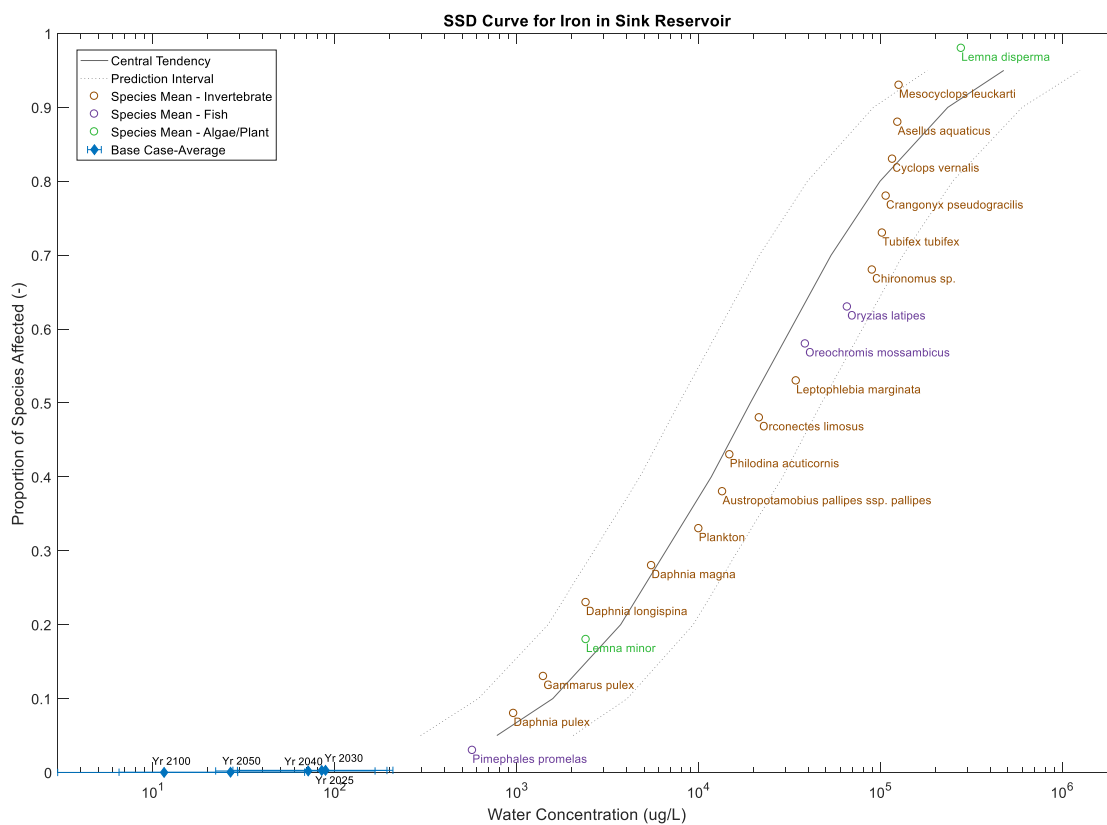


Figure 5.3-10 Assessment of Effects on Aquatic Biota - Silver

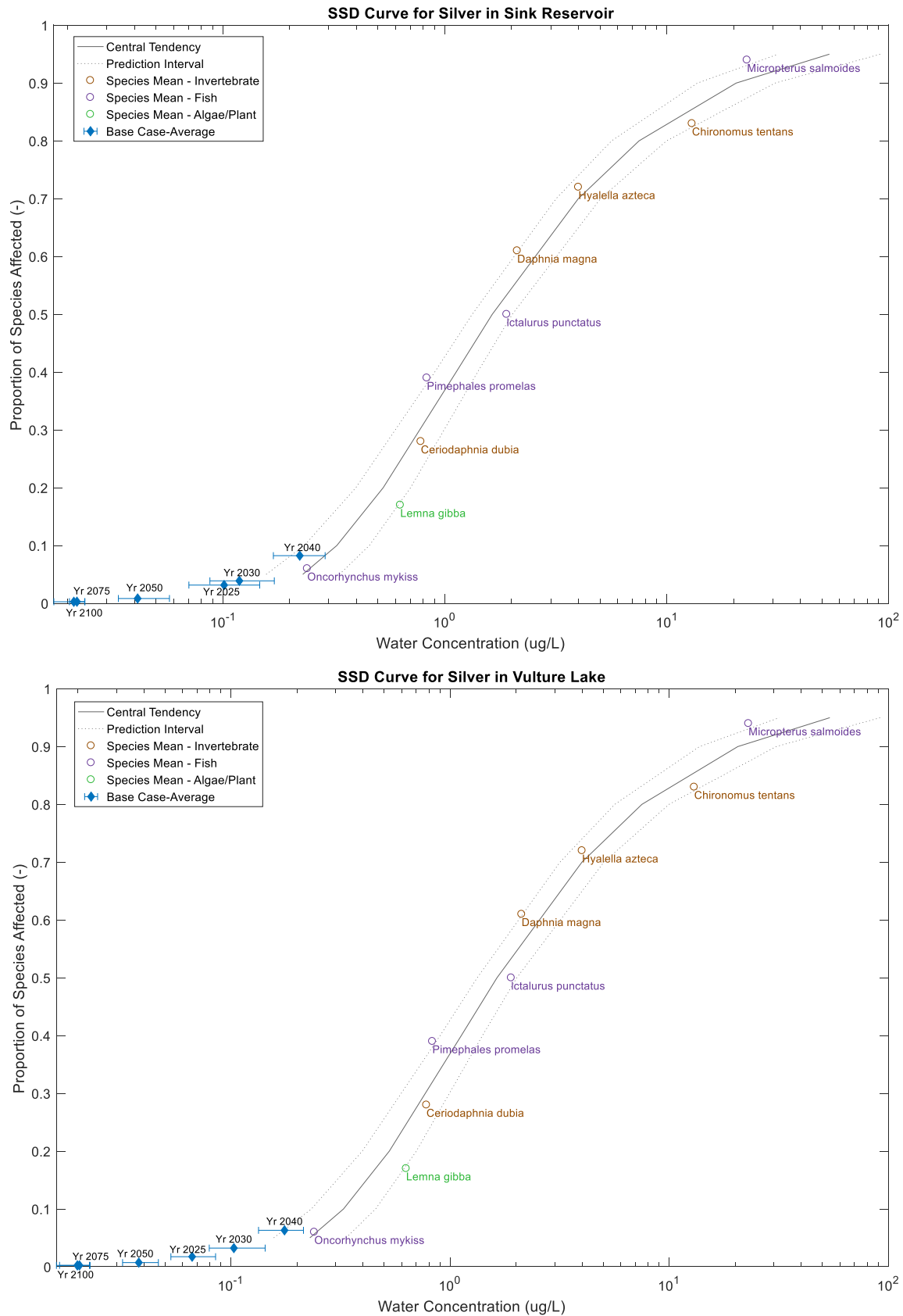


Figure 5.3-11 Assessment of Effects on Aquatic Biota - Thallium

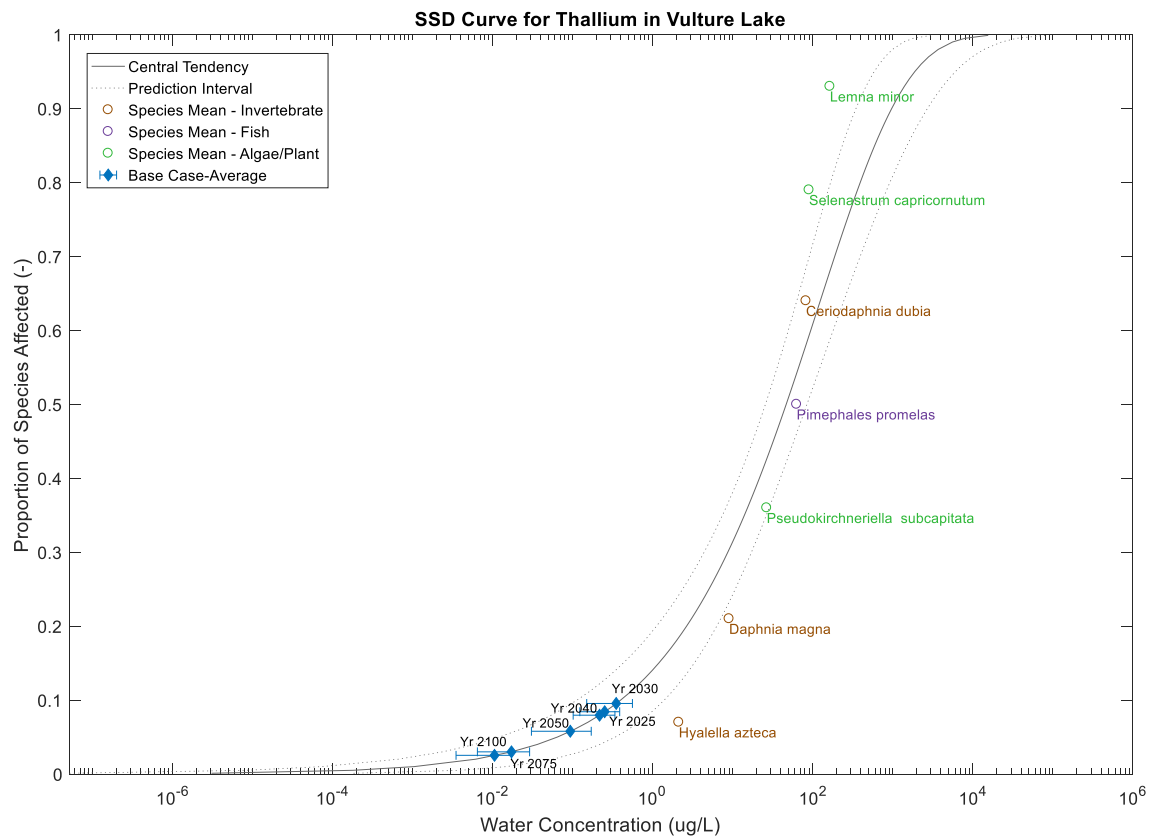
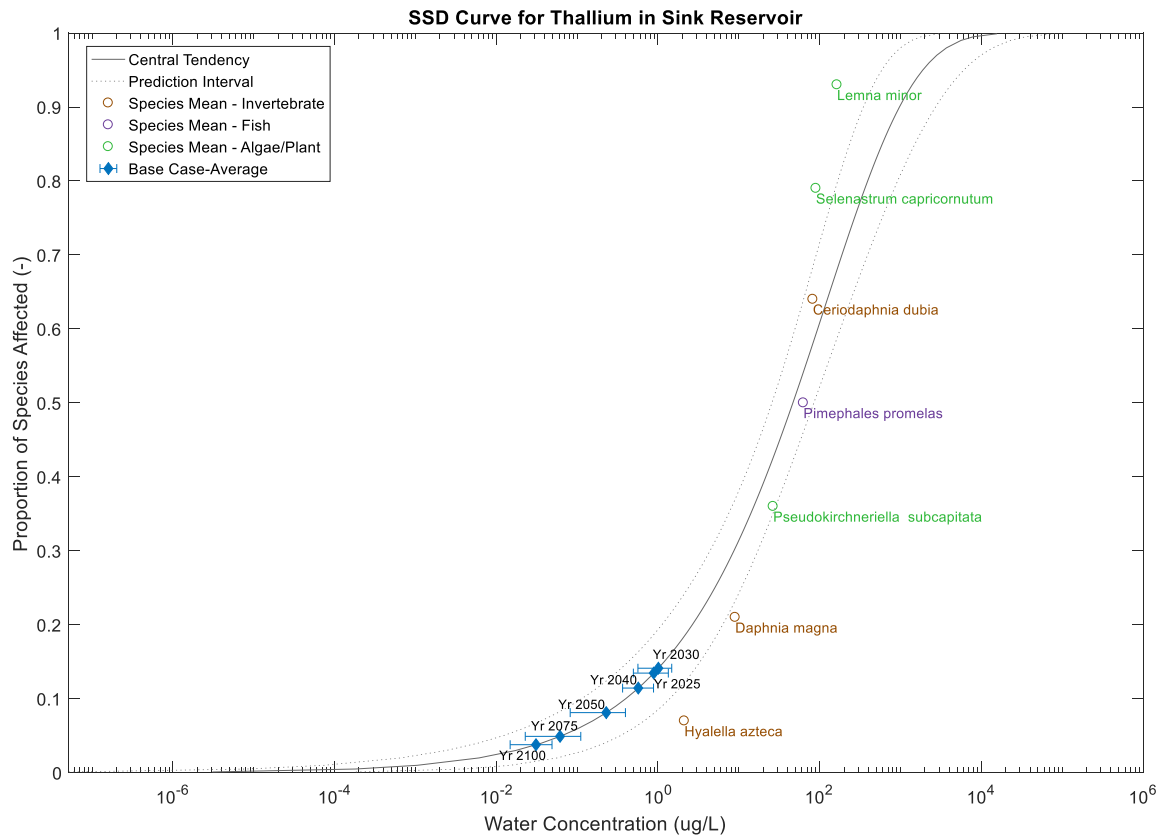


Figure 6.3-1 Typical Distribution of Annual Dose from Natural Radiation

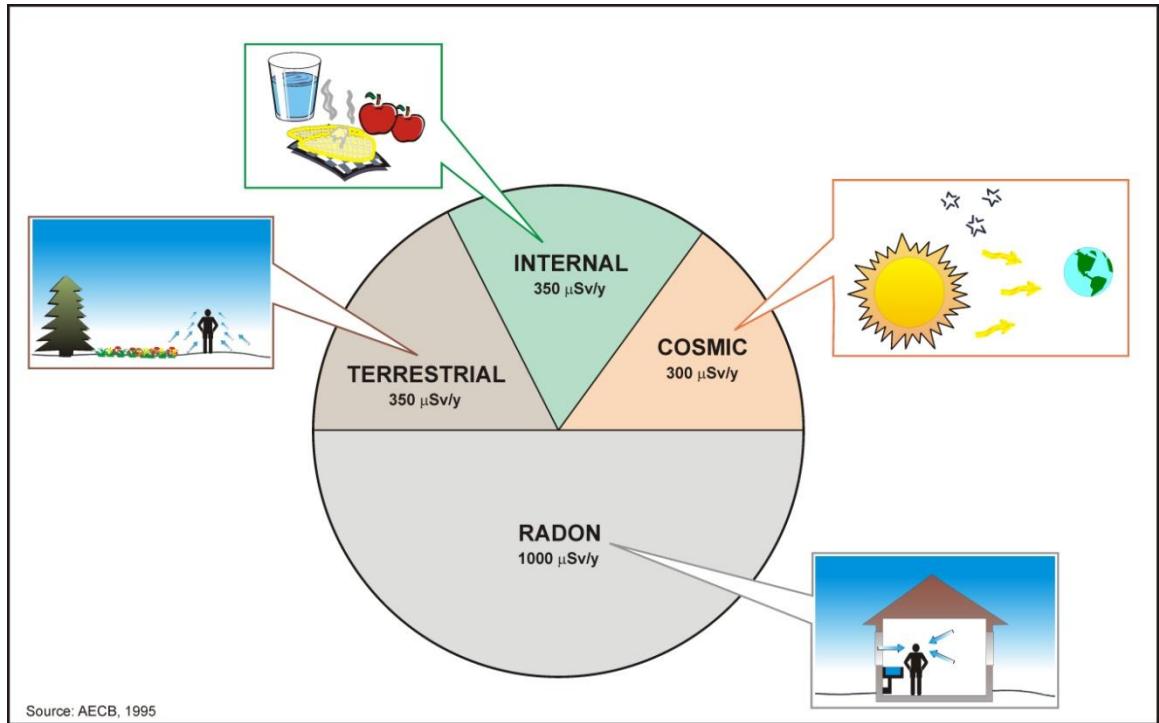
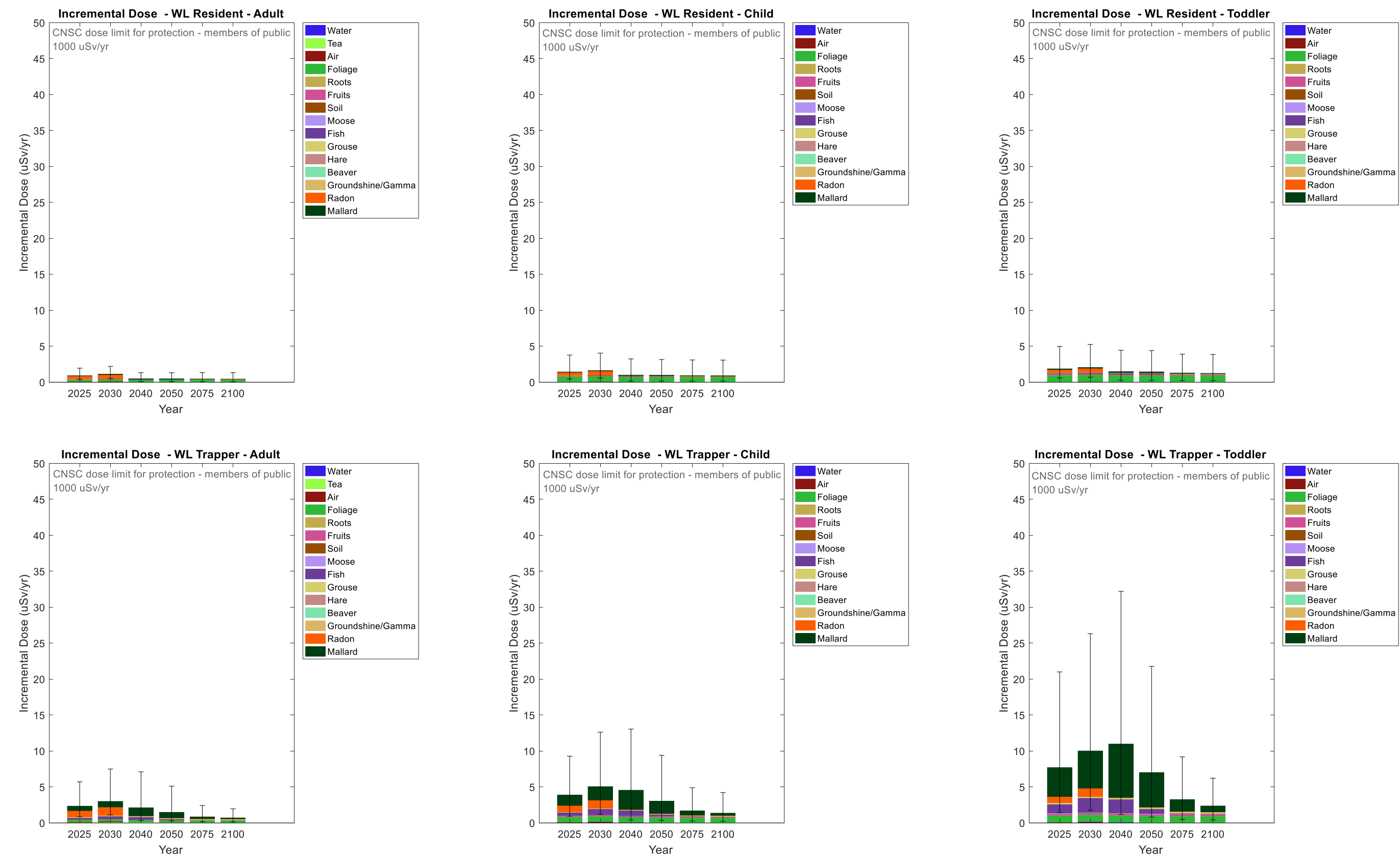
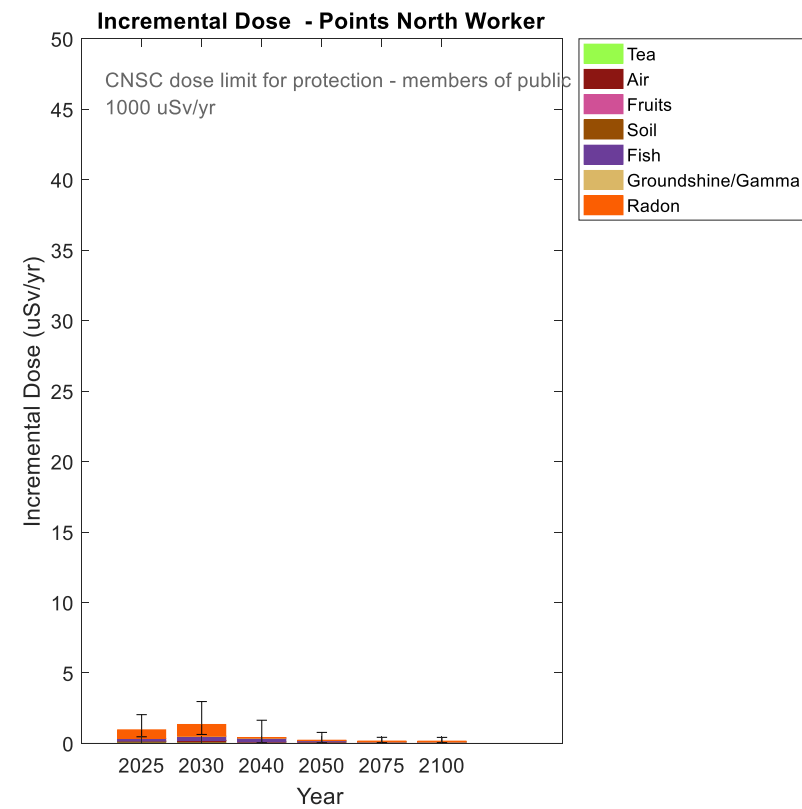
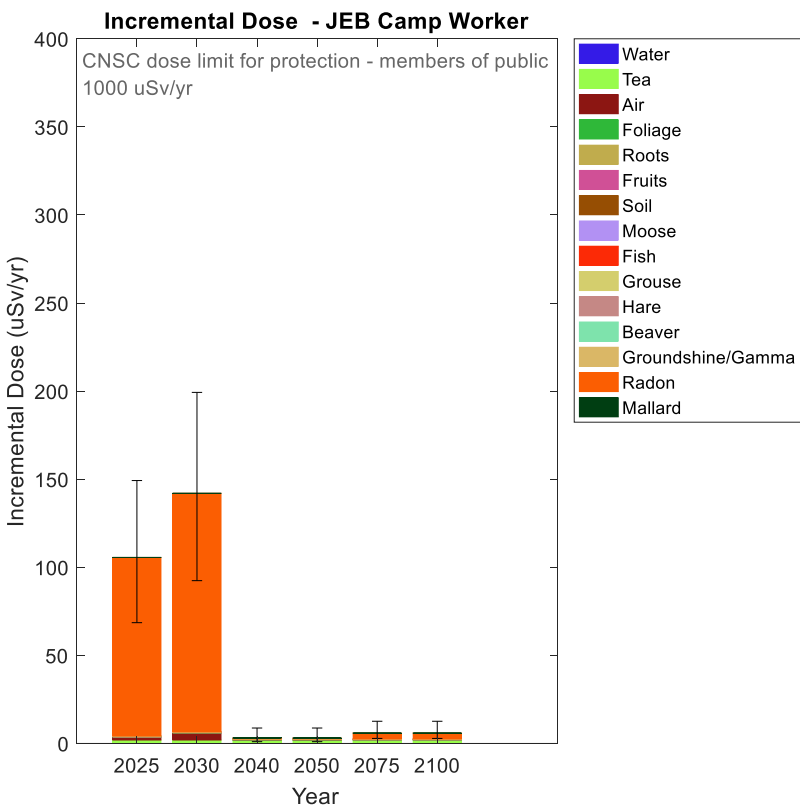
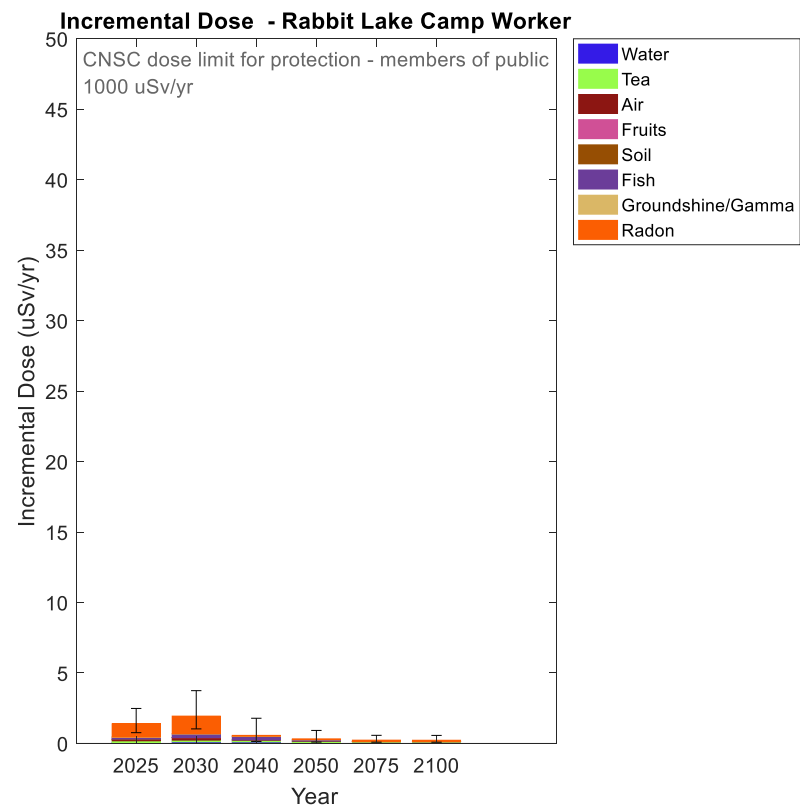
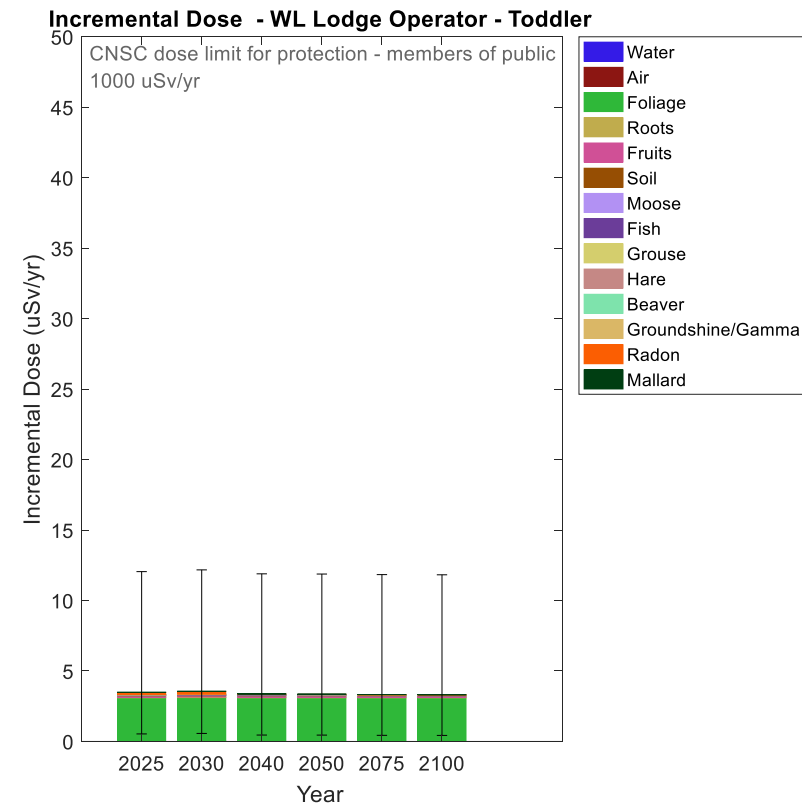
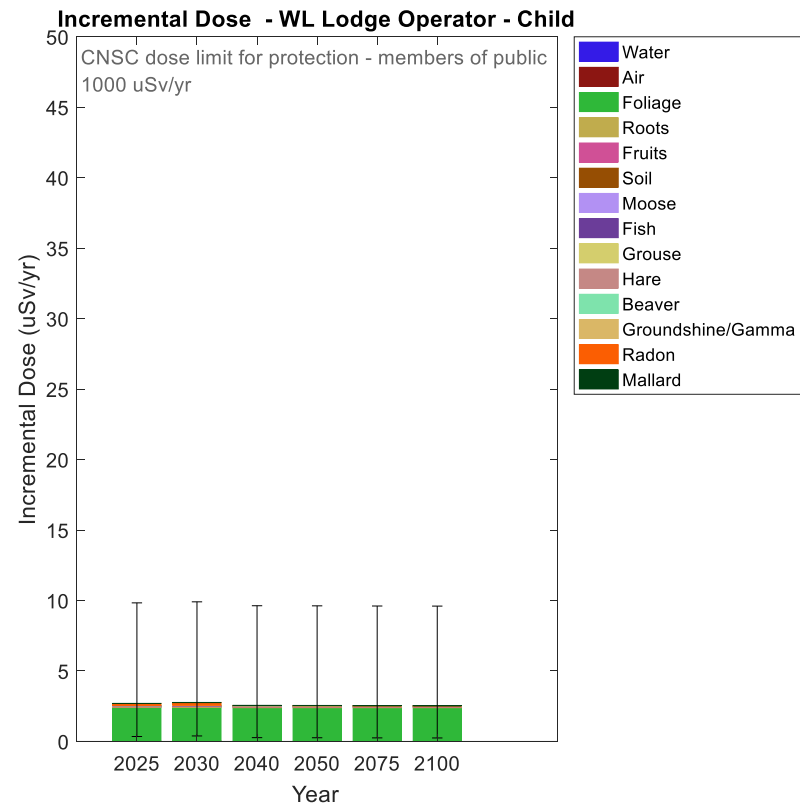
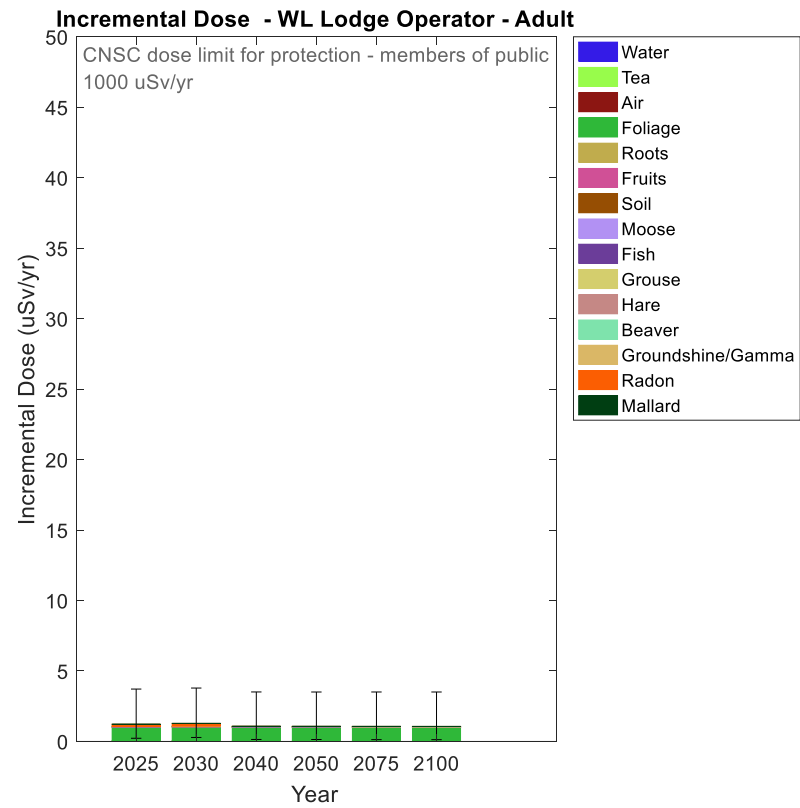


Figure 6.3-2 Predicted Incremental Annual Radiation Dose from McClean Lake Operation – Base Case





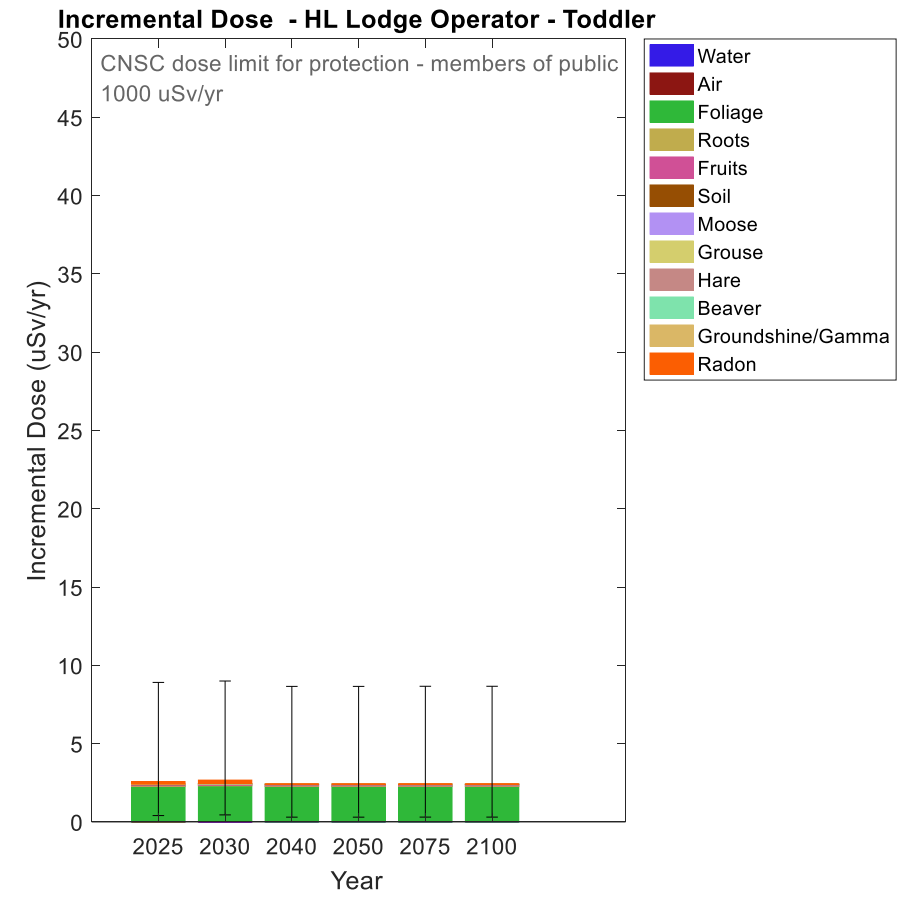
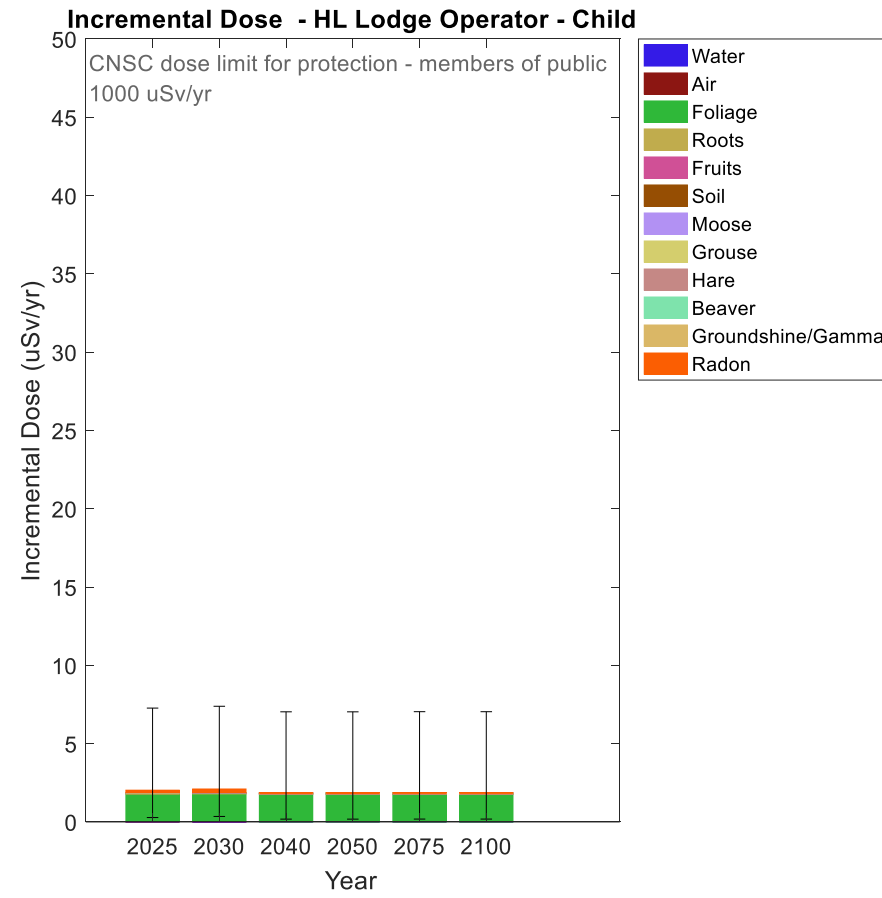
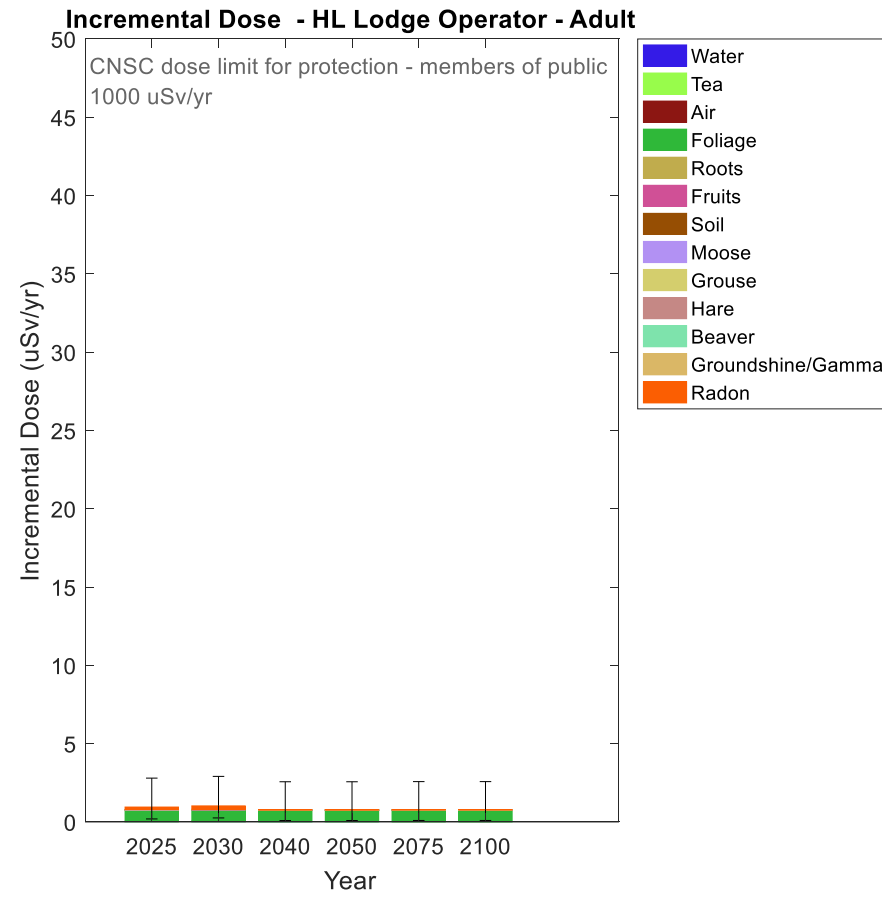
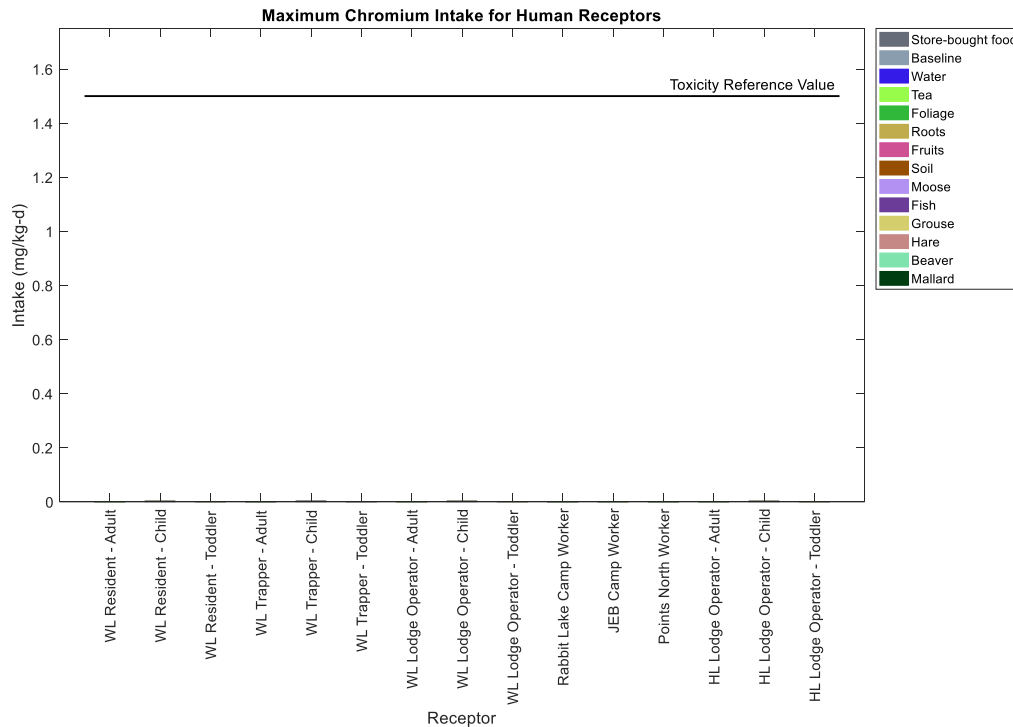
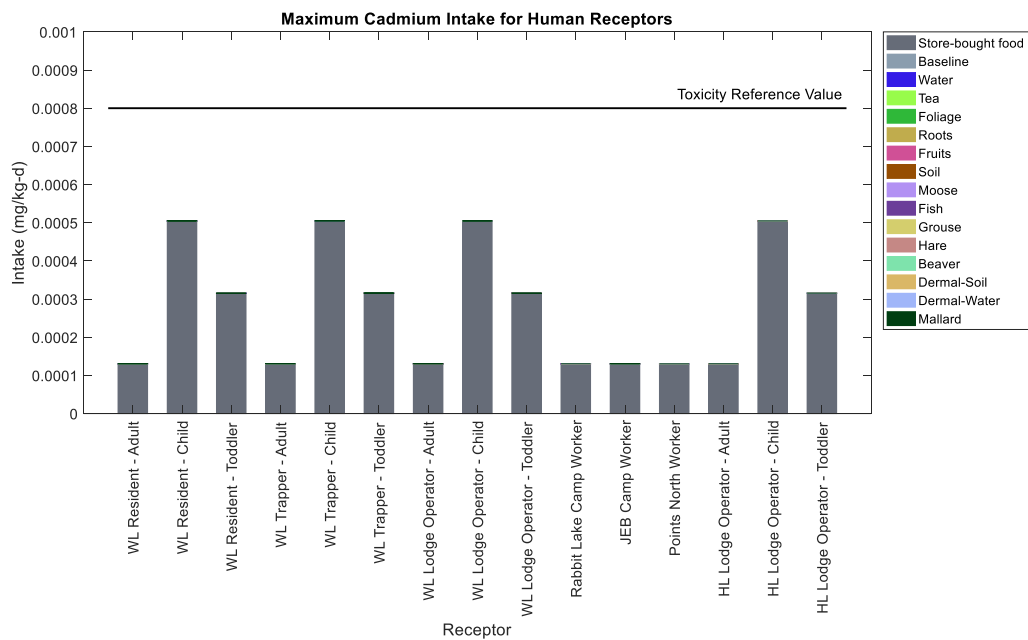
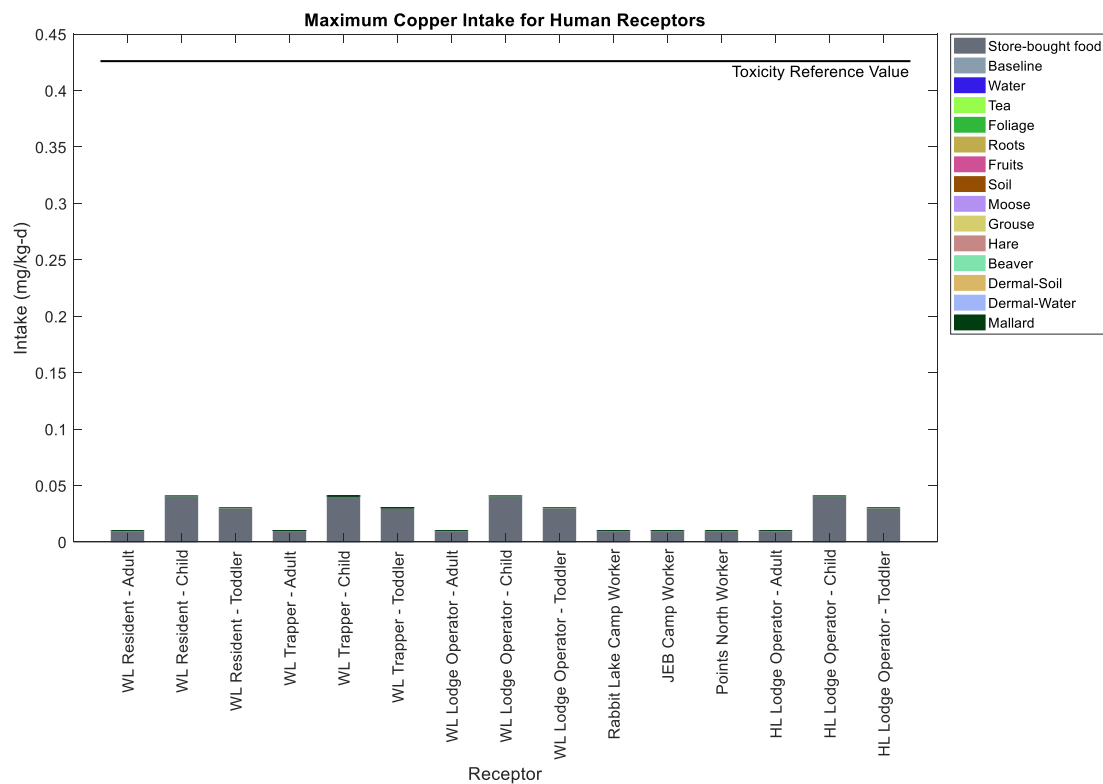
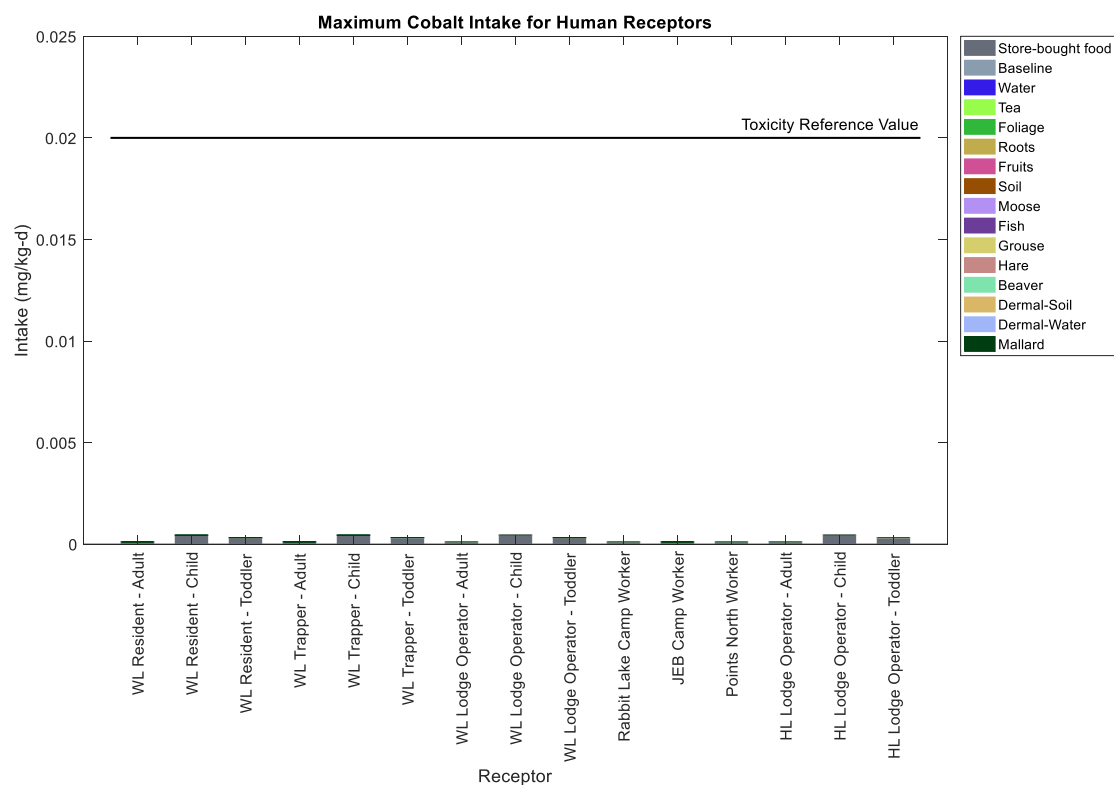


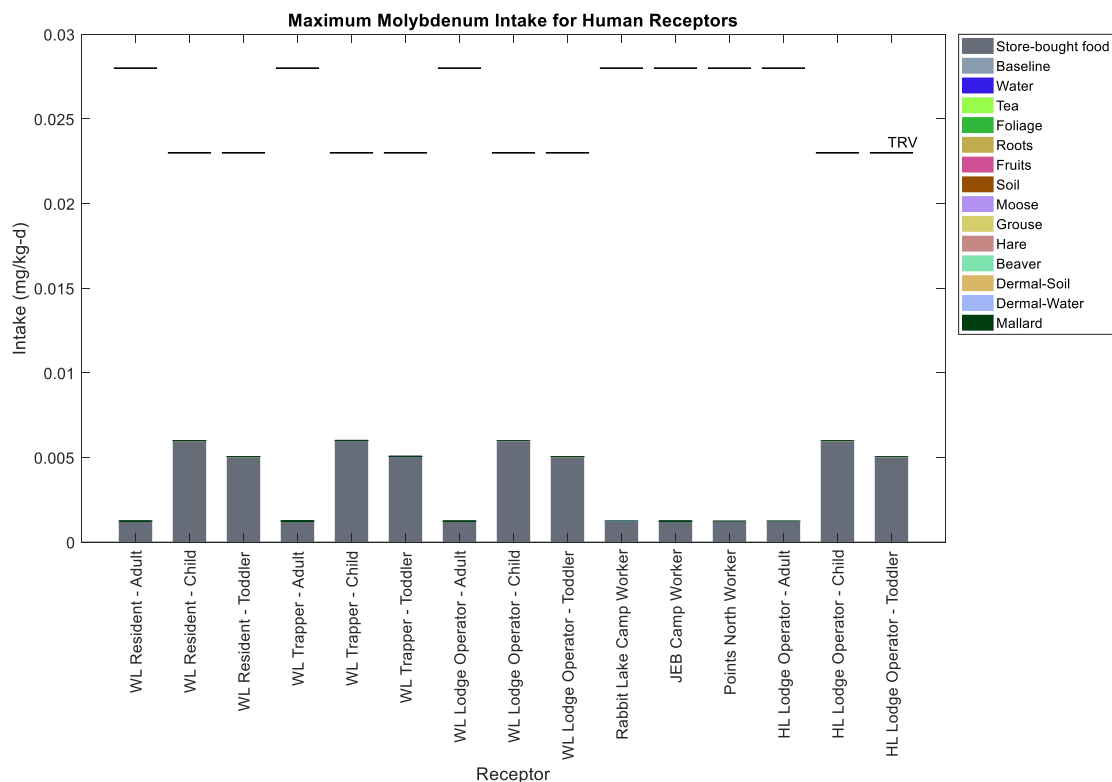
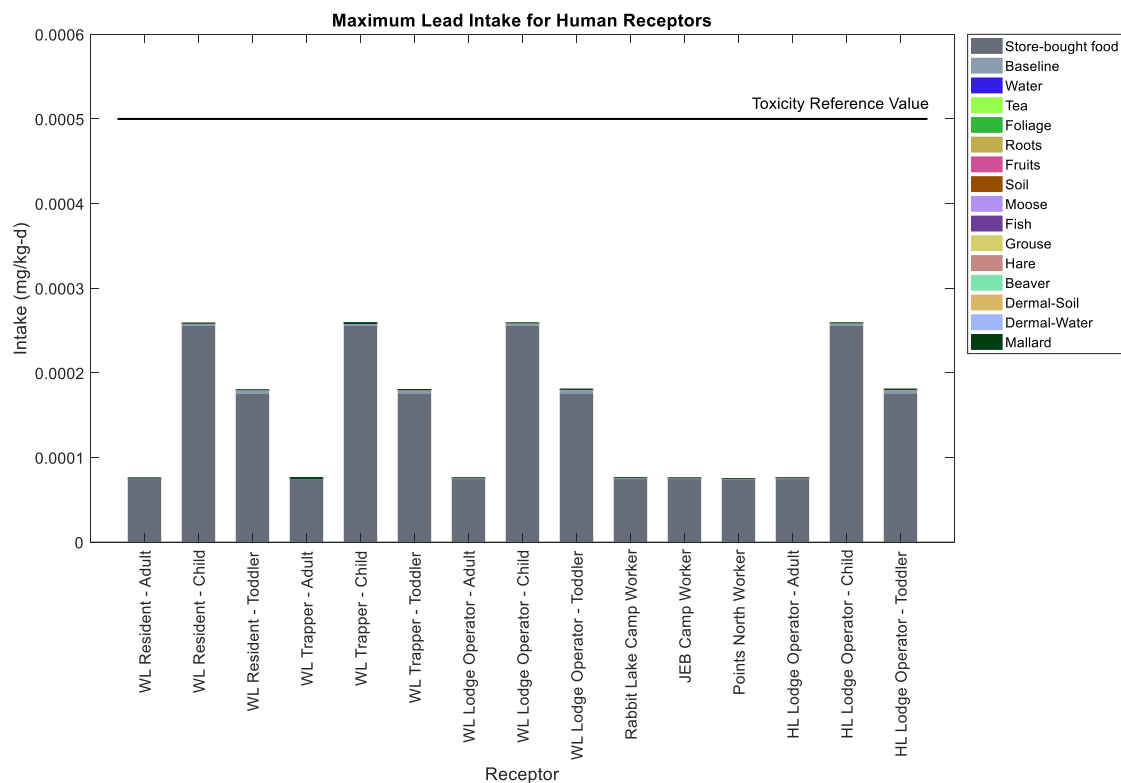
Figure 6.3-3 Predicted Maximum Intakes of Non-Radionuclides by Pathway for Human Receptors – Base Case



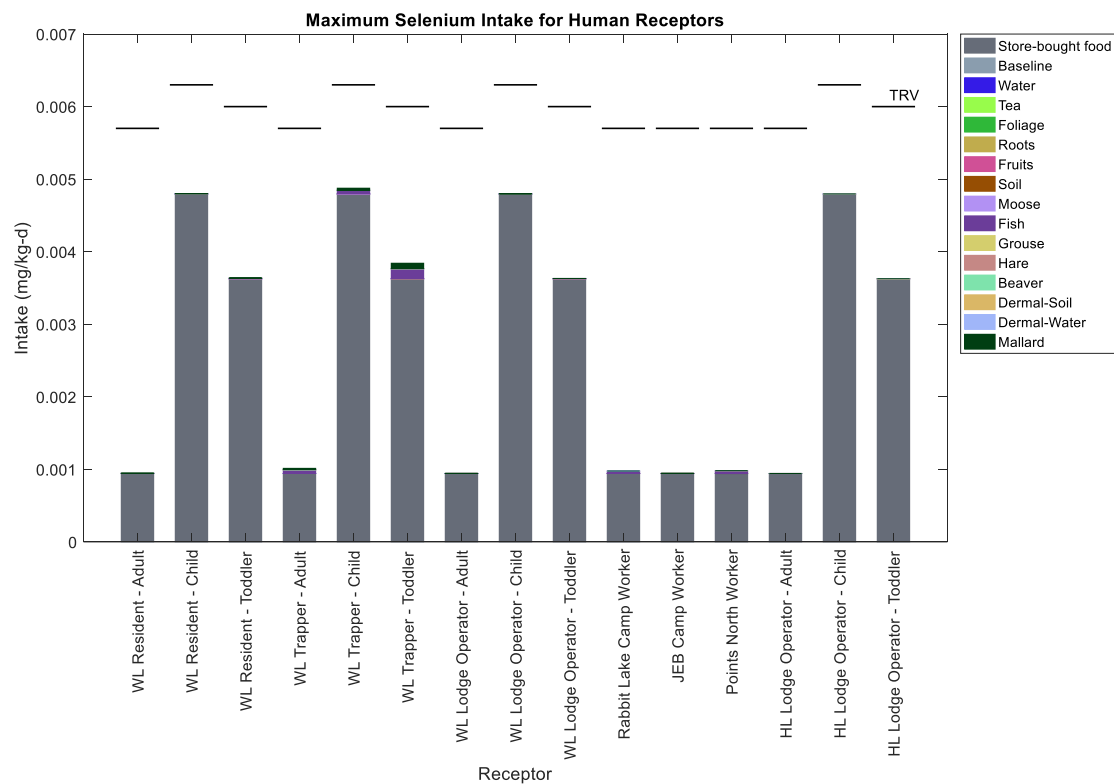
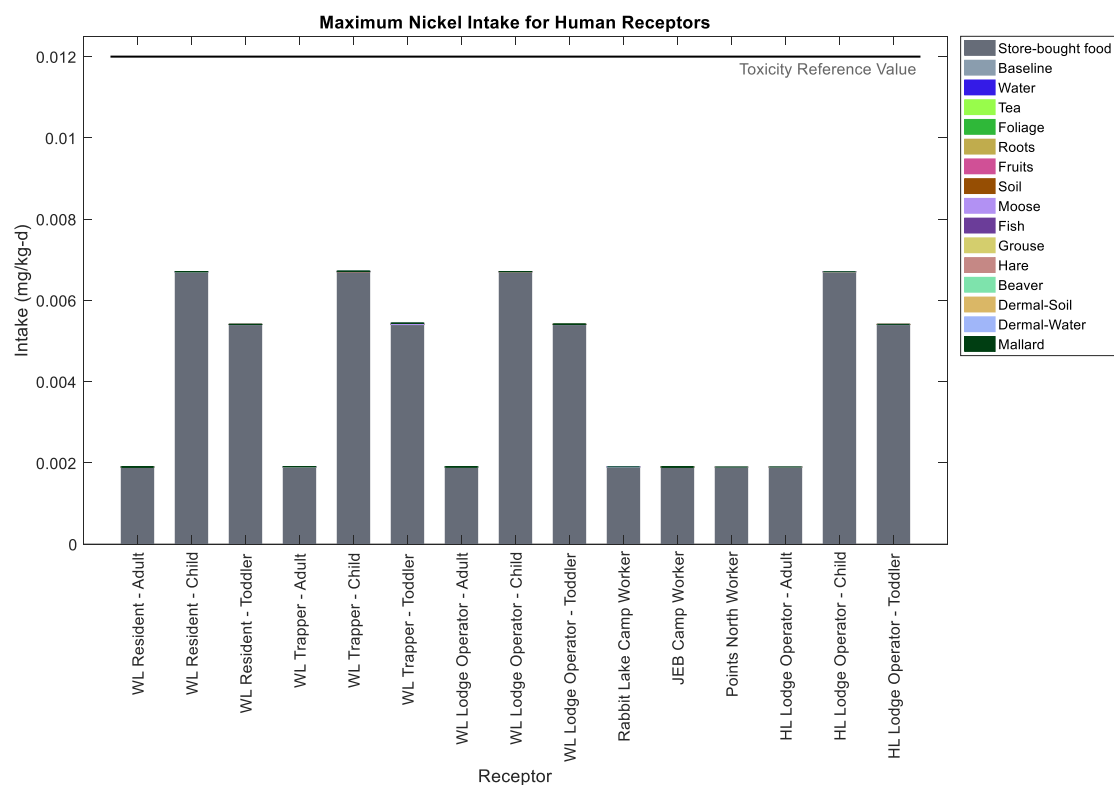
Note: Store-bought foods represent General Canadian intakes. Baseline intakes are exposure to local media (e.g., water, soil, local country food items, etc.) without releases from the site.



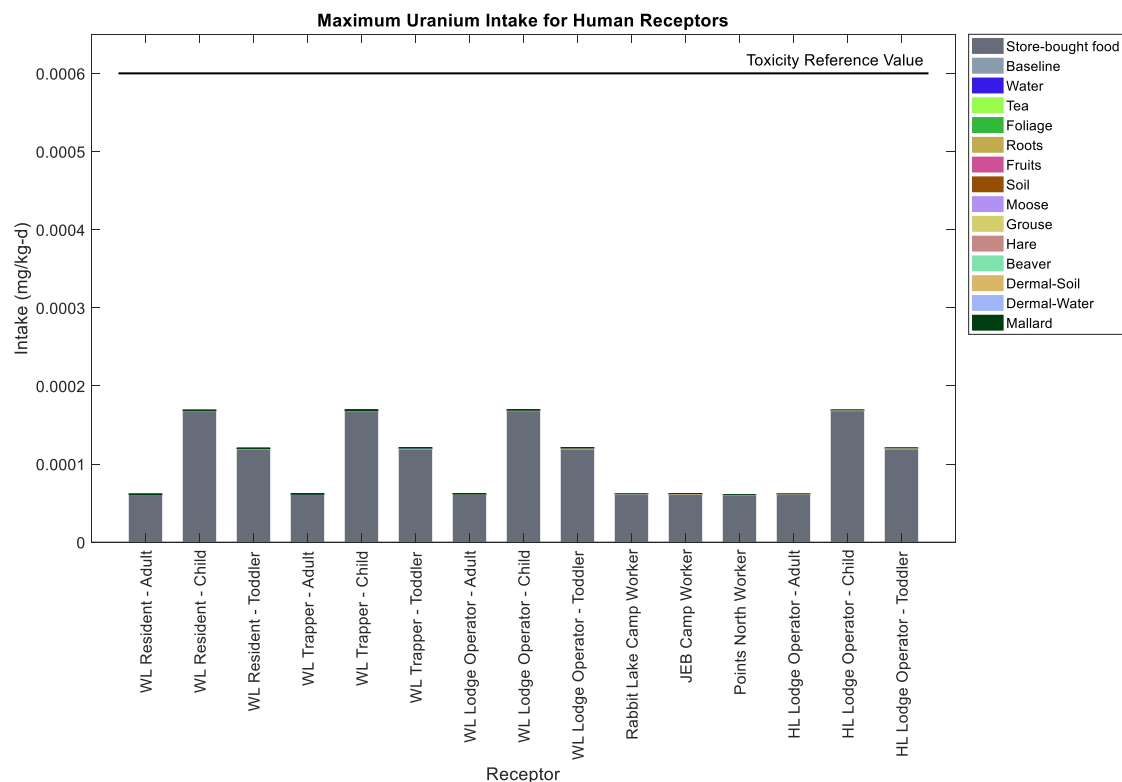
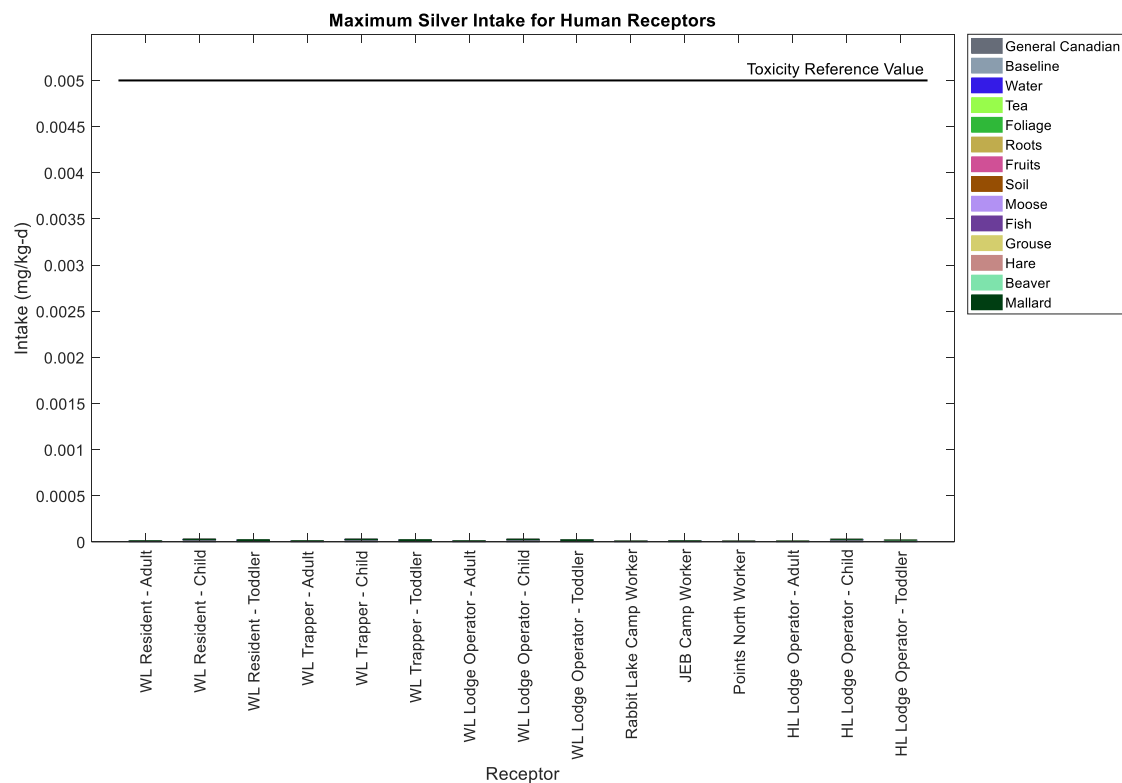
Note: Store-bought foods represent General Canadian intakes. Baseline intakes are exposure to local media (e.g., water, soil, local country food items, etc.) without releases from the site.



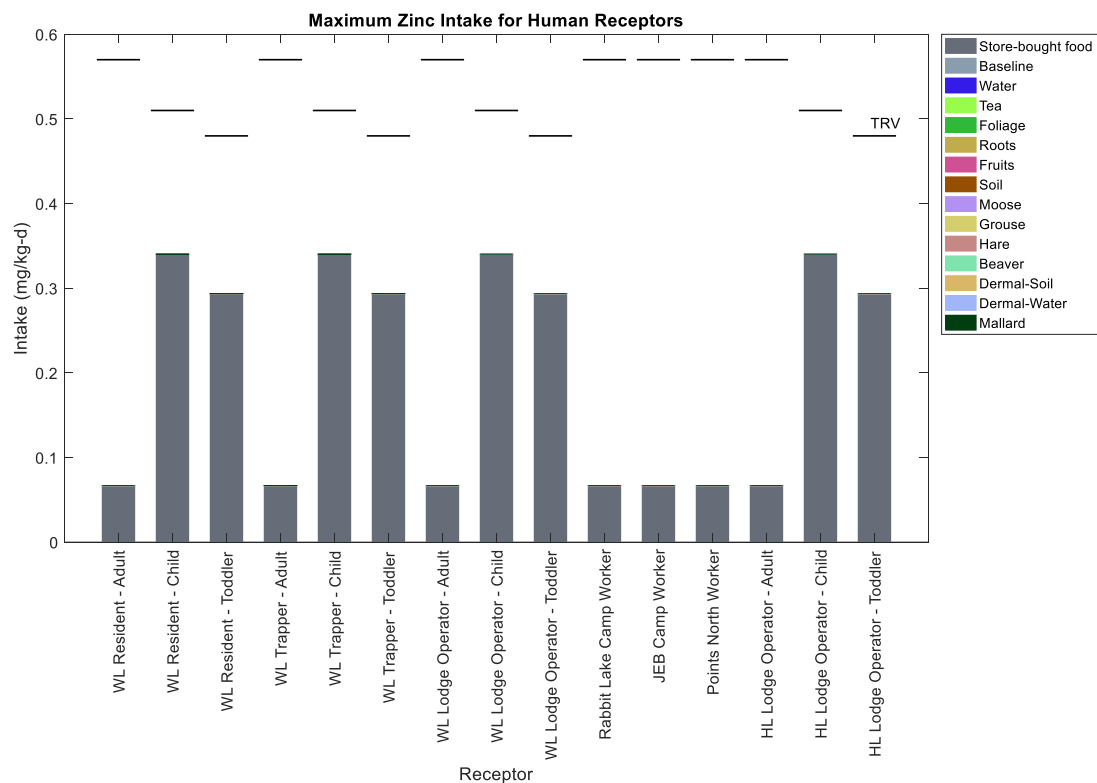
Note: Store-bought foods represent General Canadian intakes. Baseline intakes are exposure to local media (e.g., water, soil, local country food items, etc.) without releases from the site.



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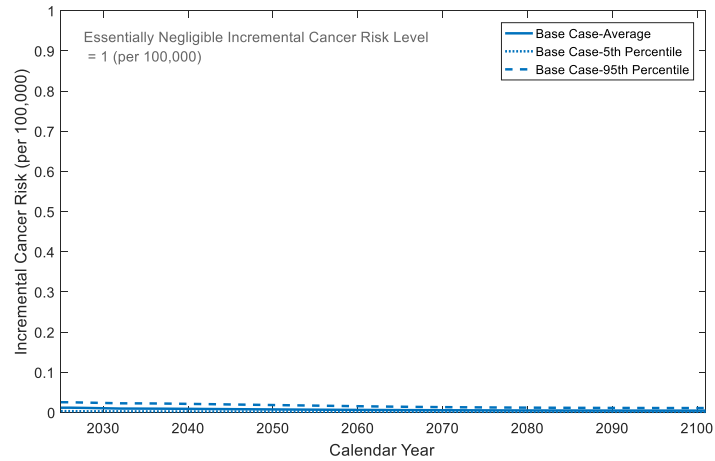
Note: Store-bought foods represent General Canadian intakes. Baseline intakes are exposure to local media (e.g., water, soil, local country food items, etc.) without releases from the site.



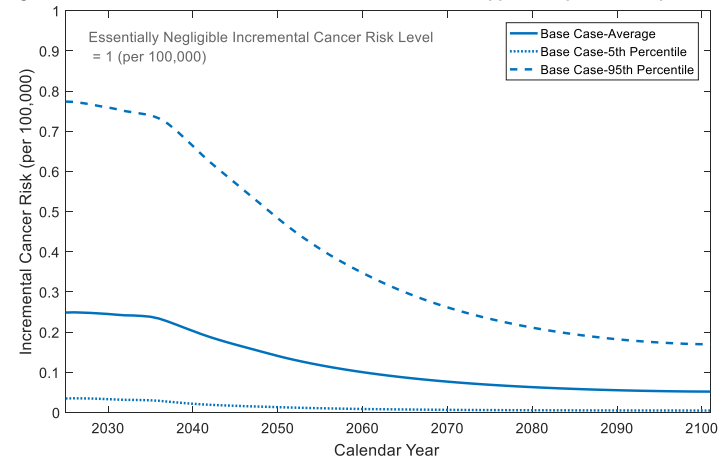
Note: Store-bought foods represent General Canadian intakes. Baseline intakes are exposure to local media (e.g., water, soil, local country food items, etc.) without releases from the site.

Figure 6.3-4 Predicted Incremental Cancer Risks for Human Receptors - Arsenic

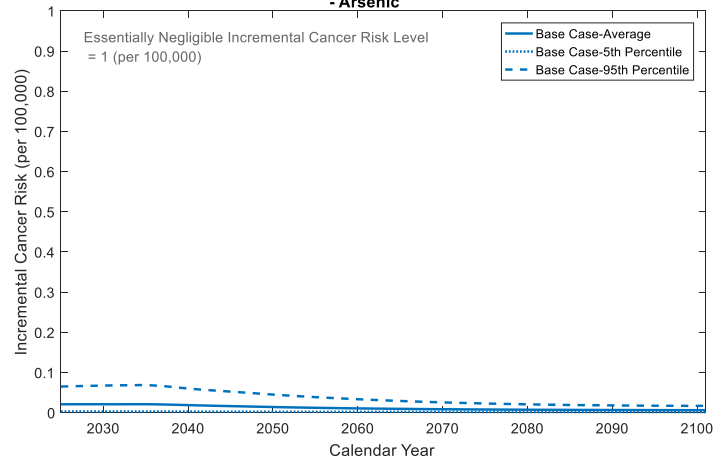
Average Lifetime Incremental Cancer Risk for Wollaston Lake Resident Composite Receptor - Arsenic



Average Lifetime Incremental Cancer Risk for Wollaston Lake Trapper Composite Receptor - Arsenic



Average Lifetime Incremental Cancer Risk for Wollaston Lake Lodge Operator Composite Receptor - Arsenic



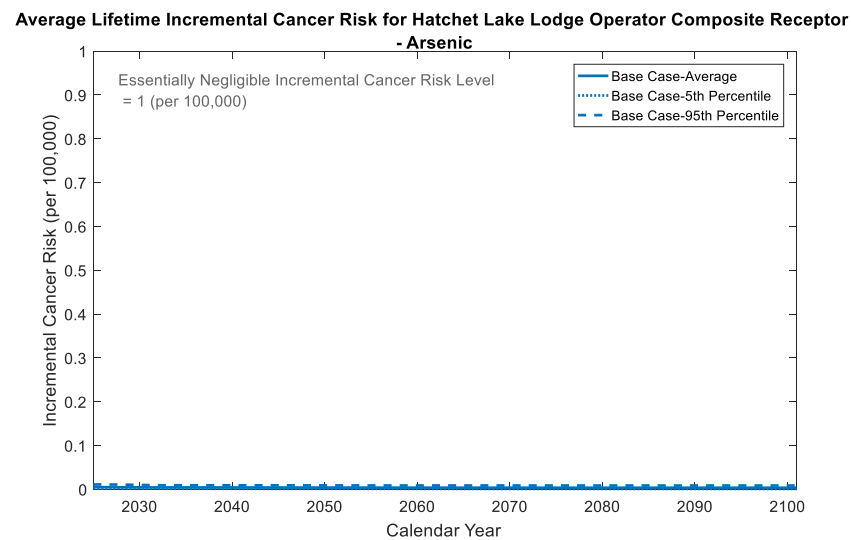
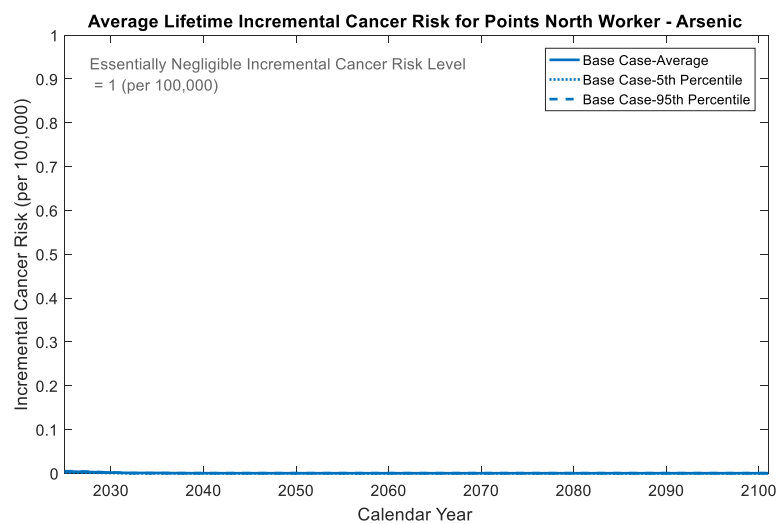
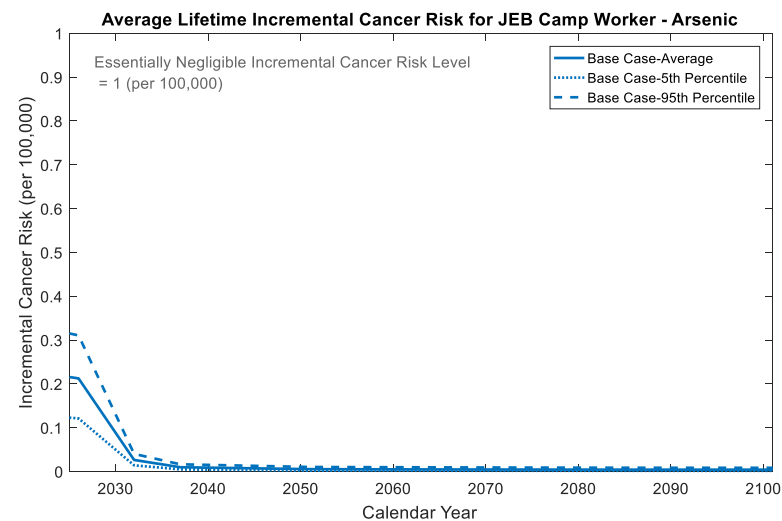
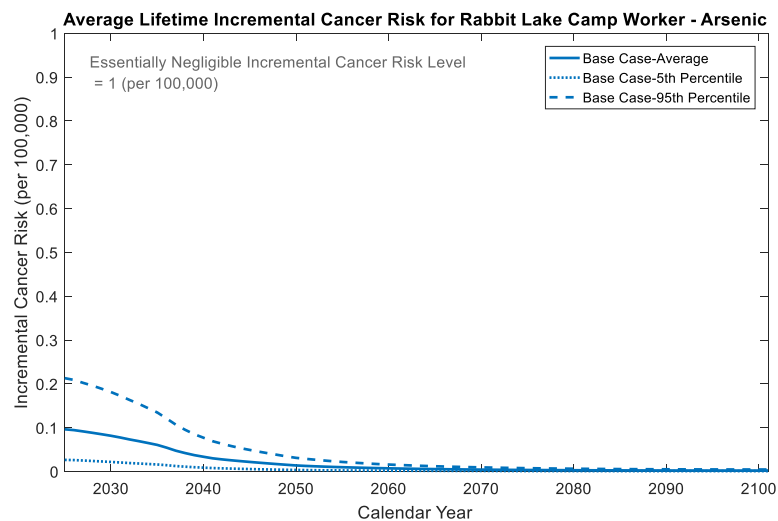


Figure 7.2-1 Predicted groundwater flux of nitrate to Bena Lake over time

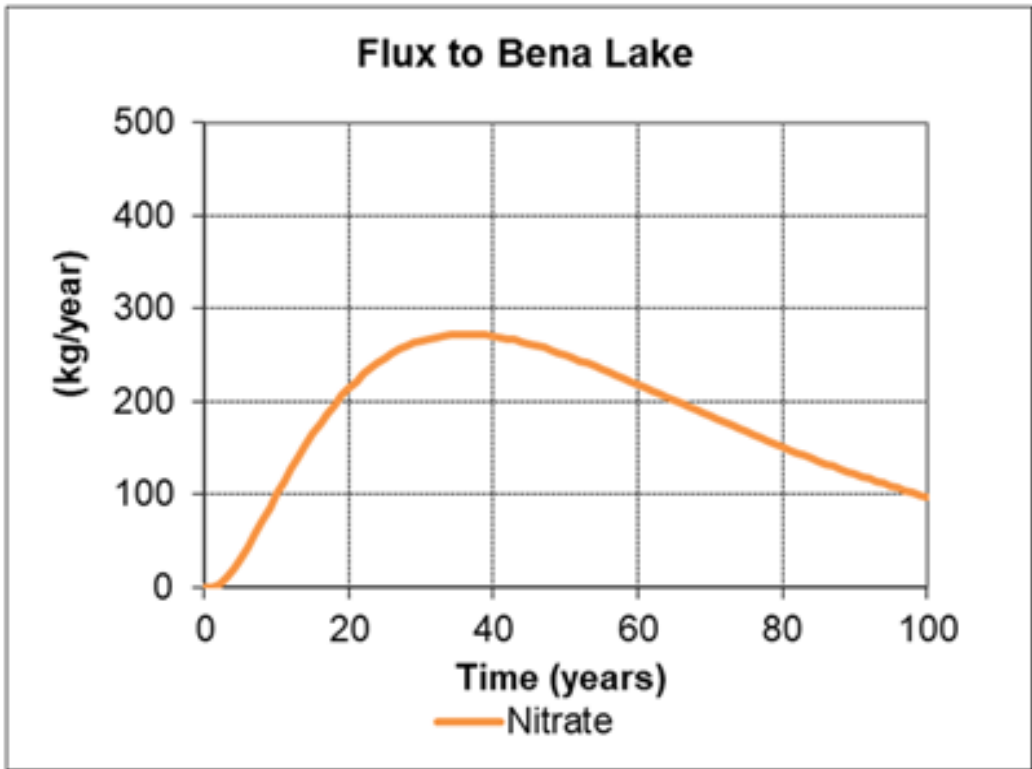
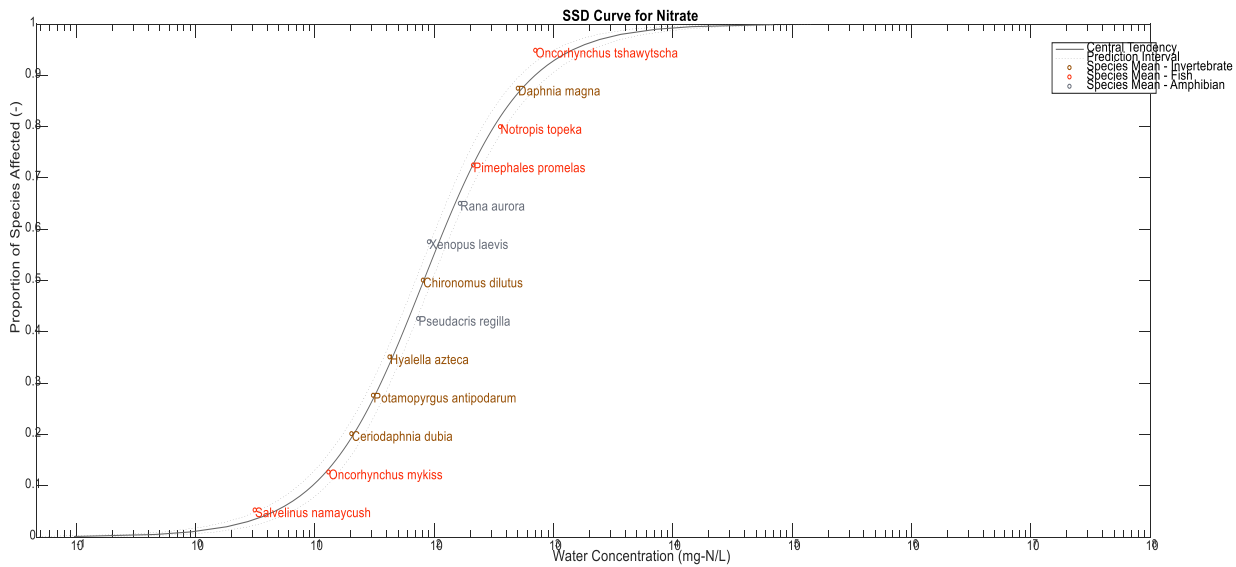
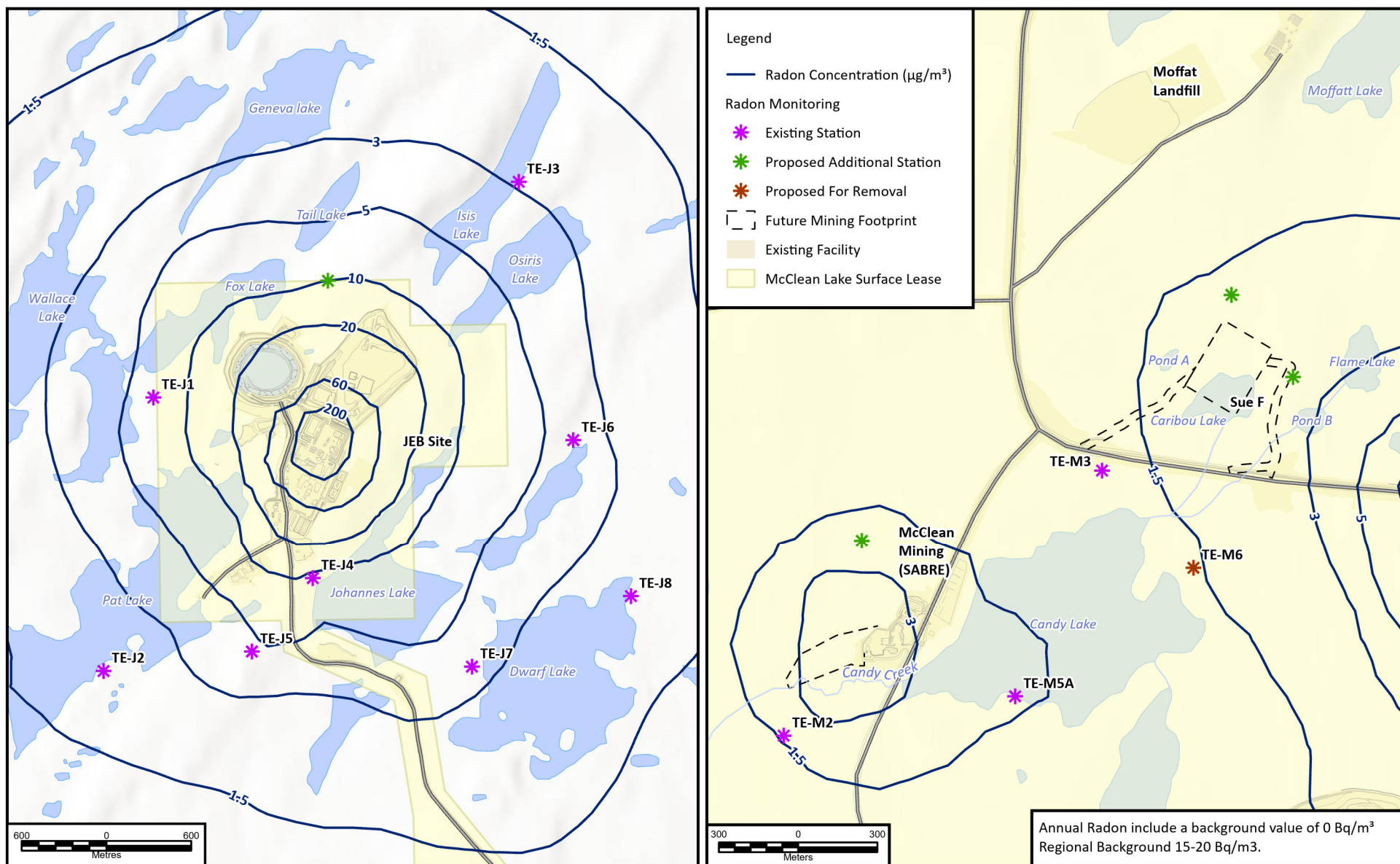


Figure 7.3-1 Nitrate SSD curve





Projection: NAD 1983 UTM Zone 13N
 Compiled: T.Lohman Drawn: T.Lohman
 Date: 2025-12-01 4:30 PM Scale: See Scale Bar
 Data Sources: Nation Topographic Database, ORANO Canada Inc.

McCLEAN LAKE OPERATION

FIGURE 8.1-1
 PROPOSED ADJUSTMENTS TO RADON MONITORING PROGRAM

2025 ENVIRONMENTAL PERFORMANCE TID VOLUME 2